Mitra 09/786,260

=> d his 1

(FILE 'BIOSIS, MEDLINE, HCAPLUS, EMBASE, SCISEARCH, WPIDS' ENTERED AT 14:54:15 ON 03 FEB 2004)

L18 85 S L17 NOT PY>1999

=> d que l18

L1 8673 SEA ITOH Y?/AU
L2 1011 SEA OGI K?/AU
L3 42620 SEA TANAKA H?/AU
L4 707 SEA KITADA C?/AU
L5 52766 SEA (L1 OR L2 OR L3 OR L4)
L6 31 SEA L5 AND HUMORAL(A) FACTOR#
L7 1 SEA L6 AND EXTRACELLULAR?
L8 10492 SEA HUMORAL(A) FACTOR#
L9 296 SEA L8 AND EXTRACELLULAR?
L10 73 SEA L9 AND (EXCRET? OR SECRET?)
L12 41 SEA L8 (3A)(DNA OR RNA OR NUCLEIC OR RIBONUCLEIC OR DEOXYRIBONU CLEIC OR RECOMBINAN? OR TRANSFORMA? OR POLYNUCLEOTID?)
L14 16 SEA L8 (5A) INHIBIT? (3A) ACTIVIT?
L15 12 SEA L8 (5A) PROMOT?(3A) ACTIVIT?
L16 24 SEA FILE=WPIDS HUMORAL(A) FACTOR#
L17 110 DUP REM L7 L10 L12 L14 L15 L16 (57 DUPLICATES REMOVED)
L18 85 SEA L17 NOT PY>1999

=> d ibib abs l18 1-85

L18 ANSWER 1 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1999:47367 BIOSIS
DOCUMENT NUMBER: PREV199900047367
TITLE: Mechanisms of hemopoietic cytostatic damage and regeneration.
AUTHOR(S): Gol'dberg, E. D.; Dygai, A. M.; Zhdanov, V. V.
CORPORATE SOURCE: Res. Inst. Pharmacol., Tomsk Res. Cent., Sib. Div., Russ. Acad. Med. Sci., Tomsk, Russia
SOURCE: Vestnik Rossiiskoi Akademii Meditsinskikh Nauk, (1998) Vol. 0, No. 10, pp. 6-10. print.
ISSN: 0869-6047.
DOCUMENT TYPE: Article
LANGUAGE: Russian
ENTRY DATE: Entered STN: 10 Feb 1999
Last Updated on STN: 10 Feb 1999

AB Bone marrow hemopoiesis, a state of the committed precursor cell pool and the nature of their interaction with hemopoiesis-inducing microenvironment (HIM) elements, the level of humoral stimulants of secretion, was studied following a single injection of 5fluorouracil (5-FU), cyclophosphamide (CF) or adriamycin (A) to mice in maximum tolerance doses. Cytostatic-related changes in hemopoietic recovery were shown to depend primarily on the proliferation-differentiation relationships in the hemopoietic cells, which is in its turn determined by the status of HIM cells after cytostatic exposure. The enhanced functional activity of HIM elements in response to hemopoietic tissue damage induced by A or CF promotes rapid hemopoietic recovery which becomes much more accelerated while using recombinant colony-stimulating factor (CSF) and, to a lesser degree, glycyrrham, a plant drug. At the same time 5-FU that caused prolonged bone marrow hypoplasia impaired the function of microenvironment cells. The use of this model demonstrated a lower efficiency of CSF than glycyrrham that normalized the structure of HIM.

Search completed by David Schreiber 308-4292

Mitra 09/786,260

L18 ANSWER 2 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1998:389885 BIOSIS
DOCUMENT NUMBER: PREV199800389885
TITLE: **Extracellular** calcium (Cao2+)-sensing receptor in a murine bone marrow-derived stromal cell lines (ST2): Potential mediator of the actions of Cao2+ on the function of ST2 cells.
AUTHOR(S): Yamaguchi, Toru [Reprint author]; Chattopadhyay, Naibedya; Kifor, Olga; Brown, Edward M.
CORPORATE SOURCE: Endocrine-Hypertension Div., Brigham and Women's Hosp., 221 Longwood Ave., Boston, MA 02115, USA
SOURCE: Endocrinology, (Aug., 1998) Vol. 139, No. 8, pp. 3561-3568. print.
CODEN: ENDOAO. ISSN: 0013-7227.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 10 Sep 1998
Last Updated on STN: 21 Oct 1998

AB The calcium-sensing receptor(CaR)is a G protein-coupled receptor that plays key roles in **extracellular** calcium ion (Ca2+) homeostasis by mediating the actions of Cao2+ on parathyroid gland and kidney. Bone marrow stromal cells support the formation of osteoclats from their progenitors as well as the growth of hematopoietic stem cells by **secreting humoral factors** and through cell to cell contact. Stromal cells also have the capacity to differentiate into bone-forming osteoblasts. Bone resorption by osteoclasts probably produces substantial local increases in Ca2+. that could provide a signal for stromal cells in the immediate vicinity, leading us to determine whether such stromal cells express the CaR. In this study, we used the murine bone marrow-derived, stromal cell line, ST2. Both immunocytochemistry and Western blot analysis, using an antiserum specific for the CaR, detected CaR protein in ST2 cells. We also identified CaR transcripts in ST2 cells by Northern analysis using a CaR-specific probe and by RT-PCR with CaR-specific primers, followed by nucleotide sequencing of the amplified products. Exposure of ST2 cells to high Ca2+degree (4.8 mM) or to the polycationic CaR agonists, neomycin (300 muM) or gadolinium (100 muM), stimulated both chemotaxis and DNA synthesis in ST2 cells. Therefore, taken together, our data strongly suggest that the bone marrow-derived stromal cell line, ST2, possesses both CaR protein and messenger RNA that are very similar if not identical to those in parathyroid and kidney. Furthermore, as ST2 cells have the potential to differentiate into osteoblasts, the CaR in stromal cells could participate in bone turnover by stimulating the proliferation and migration of such cells to sites of bone resorption as a result of local, osteoclast-mediated release of Cao2+ and, thereafter, initiating bone formation after their differentiation into osteoblasts.

L18 ANSWER 3 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1997:410330 BIOSIS
DOCUMENT NUMBER: PREV199799702373
TITLE: Fluid shear stress modulates von Willebrand factor release from human vascular endothelium.
AUTHOR(S): Galbusera, Miriam; Zoja, Carlo; Donadelli, Roberta; Paris, Simona; Morigi, Marina; Benigni, Ariela; Figliuzzi, Maria; Remuzzi, Giuseppe; Remuzzi, Andrea [Reprint author]
CORPORATE SOURCE: Biomed. Eng. Lab., Mario Negri Inst. Pharmacol. Res., via Gavazzeni 11, 24125 Bergamo, Italy
SOURCE: Blood, (1997) Vol. 90, No. 4, pp. 1558-1564.

Search completed by David Schreiber 308-4292

CODEN: BLOOAW. ISSN: 0006-4971.
DOCUMENT TYPE: Article
LANGUAGE: English
ENTRY DATE: Entered STN: 24 Sep 1997
Last Updated on STN: 24 Sep 1997

AB Fluid shear stress generated by blood flow on arterial wall may play a role in the process of atherosclerosis, not only affecting the mass transport phenomena that take place in blood, but also by modulation of synthesis and **secretion** of **humoral factors** released by vascular endothelium that mediate platelet-vessel wall interactions. The present study was designed to investigate whether shear stress, induced by laminar flow, modulates von Willebrand factor (vWF) release from cultured human umbilical vein endothelial cells (HUVEC) and whether this physical stimulation can affect vWF synthesis. Monolayers of HUVEC were exposed to laminar flow of varying magnitude (from 2 to 12 dynes/cm-2) using a cone-and-plate device. The release of vWF in cell supernatant and in **extracellular** matrix by cells exposed to flow or maintained in static conditions was evaluated by enzyme-linked immunosorbent assay. HUVEC exposed to laminar flow released higher amounts of vWF into the cell supernatant within few hours of exposure and vWF **secretion** was dependent on shear stress magnitude. vWF released in **extracellular** matrix was also higher in cell monolayers exposed to shear than in static controls. vWF mRNA expression in HUVEC was not affected by exposure of calls to laminar flow, indicating that shear-induced vWF release reflected enhanced **secretion** without de novo protein synthesis. Immunofluorescence studies showed that the release of vWF is due to exocytosis from Weibel-Palade bodies, the storage organelles of vWF. These data indicate a novel mechanism by which local hemodynamic shear forces modulate endothelial cell function and may play a role in development of arterial thrombotic events.

L18 ANSWER 4 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1992:453278 BIOSIS
DOCUMENT NUMBER: PREV199294094678; BA94:94678
TITLE: MARKED INDUCTION OF HEPATOCYTE GROWTH FACTOR MRNA IN INTACT KIDNEY AND SPLEEN IN RESPONSE TO INJURY OF DISTANT ORGANS.
AUTHOR(S): KONO S [Reprint author]; NAGAIKE M; MATSUMOTO K; NAKAMURA T
CORPORATE SOURCE: DEP BIOL, FAC SCI, KYUSHU UNIV, FUKUOKA 812, JPN
SOURCE: Biochemical and Biophysical Research Communications, (1992) Vol. 186, No. 2, pp. 991-998.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 7 Oct 1992
Last Updated on STN: 7 Oct 1992

AB Hepatocyte growth factor (HGF) is a potent mitogen for various epithelial cells, including mature hepatocytes and renal tubular cells. Here HGF mRNA was found to be markedly increased in non-injured kidney and spleen, when the liver or kidney in rats was injured by 70% partial hepatectomy or unilateral nephrectomy. HGF mRNA increased to 3-4 fold higher level than the normal in the kidney and spleen as well as in the remnant liver after partial hepatectomy. Similarly, HGF mRNA markedly increased in the spleen as well as in the remnant kidney after unilateral nephrectomy. These results suggest that the onset of injury to the liver or kidney may be recognized by distal non-injured organs by the signalling of a humoral factor and that HGF derived from these organs may be involved in the regeneration of liver or kidney, through an endocrine mechanism.

L18 ANSWER 5 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1992:438275 BIOSIS
DOCUMENT NUMBER: PREV199294090400; BA94:90400
TITLE: SUPPRESSION OF NATURAL KILLER CELL ACTIVITY BY SERA FROM PATIENTS WITH ENDOMETRIOSIS.
AUTHOR(S): KANZAKI K [Reprint author]; WANG H-S; KARIYA M; MORI T
CORPORATE SOURCE: DEP GYNECOL OBSTET, FAC MED, KYOTO UNIV, 54 SHOGOIN KAWAHARA-CHO, SAKYUO-KU, KYOTO 606, JPN
SOURCE: American Journal of Obstetrics and Gynecology, (1992) Vol. 167, No. 1, pp. 257-261.
CODEN: AJOGAH. ISSN: 0002-9378.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 22 Sep 1992
Last Updated on STN: 22 Sep 1992

AB Objective: We determined the effect of sera from patients who have endometriosis on natural killer cell activity. Study design: The natural killer cell activity of lymphocytes from healthy volunteers was examined after incubation with sera from patients who had endometriosis or from controls, with K562 cells used as targets. Results: Lymphocytes treated with sera from patients who had endometriosis expressed significantly lower levels of cytotoxicity compared with lymphocytes treated with control sera. This suppression of cytotoxicity was dose dependent, and the degree of suppression was proportional to the incubation time of the effector cells with the sera. Decreased cytotoxicity after serum treatment was also observed with sera from patients who had been treated with danazol. Conclusions: These findings show that **humoral factors** that can **inhibit** natural killer cell **activity** in vitro are present in the peripheral blood of patients who have endometriosis; moreover, they suggest that the suppressed natural killer cell activity may allow the development of endometrial cells at ectopic sites.

L18 ANSWER 6 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1992:431061 BIOSIS
DOCUMENT NUMBER: PREV199294083186; BA94:83186
TITLE: GALLBLADDER MUCOSAL FUNCTION STUDIES IN ABSORPTION AND **SECRETION** IN HUMANS AND IN DOG GALLBLADDER EPITHELIUM.
AUTHOR(S): IGIMI H [Reprint author]; YAMAMOTO F; LEE S P
CORPORATE SOURCE: DEP MED, VA MED CENTER, 1660 SOUTH COLUMBIAN WAY, SEATTLE, WASH 98108, USA
SOURCE: American Journal of Physiology, (1992) Vol. 263, No. 1 PART 1, pp. G69-G74.
CODEN: AJPHAP. ISSN: 0002-9513.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 22 Sep 1992
Last Updated on STN: 23 Sep 1992

AB The gallbladder is conventionally regarded as an absorptive organ such that dilute hepatic bile is both stored and concentrated. We studied 35 patients who had recovered from a percutaneous transhepatic gallbladder drainage performed for acute cholecystitis. After an overnight fast, gallbladder bile was dark brown in color and had a wide scatter in the lipid composition. Two hours after a meal, the gallbladder bile was opalescent white in color and had the composition of an **extracellular** fluid. This phenomenon was uniformly observed in

all 35 patients and was also consistently reproducible when five patients were repeatedly studied. We used normal dog gallbladder epithelial cell monolayers grown in culture and examined sodium flux. Control gallbladder cells absorbed sodium. When **secretin** (0.5-2.5 + 10-7 M) was added, there was a prompt reversal of sodium flux, resulting in net **secretion**. We conclude that **secretion** is a physiological function of the gallbladder mucosa. After feeding, the neural and **humoral factors** divert stored and newly **secreted** bile into the duodenum and induce active de novo **secretion** thus producing a gallbladder bile that is opalescent white with no lipids. Our results also have important implications on the origin of the pathological "white bile", the pathogenesis and treatment of gallbladder sludge, as well as the kinetic analysis of compounds undergoing enterohepatic recirculation.

L18 ANSWER 7 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1992:45048 BIOSIS
DOCUMENT NUMBER: PREV199293025023; BA93:25023
TITLE: OSTEOCLASTS IN BONE METABOLISM.
AUTHOR(S): HAKEDA Y [Reprint author]; KUMEGAWA M
CORPORATE SOURCE: DEP ORAL ANTOMY, MEIKAI UNIVERSITY SCHOOL DENTISTRY, SAKADO, SAITAMA 350-02, JAPAN
SOURCE: Acta Anatomica Nipponica, (1991) Vol. 66, No. 4, pp. 215-225.
CODEN: KAIZAN. ISSN: 0022-7722.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: JAPANESE
ENTRY DATE: Entered STN: 13 Jan 1992
Last Updated on STN: 13 Jan 1992

AB Bone resorption plays an important role in bone modeling and remodeling. Osteoclasts are the cells responsible for the bone resorption. Osteoclasts are located on endosteal bone surfaces and on the periosteal surface beneath the periosteum. They are multinucleated giant cells highly polarized in their morphology and function. Among the proximal surface, the membrane and the area of the cytoplasm directly oppose to the bone surface, which are specialized into two regions. A central region consisting of many irregular cytoplasmic processes and infoldings, the ruffled border, is known to be the active site of bone resorption. Surrounding the ruffled border, a second region, the clear zone provides an area of close attachment to the mineralized bone surface. The osteoclasts **secrete** a large amount of protons by the action of H+-pump on the ruffled border into the sealed resorption cavity, resulting in the acidified microenvironment under which condition of the bone matrix is dissolved. Protons are provided by the intracellular action of carbonic anhydrase. Following the **secretion** of the protons, several ion-transporting systems, i.e., carbonate-chloride exchanger, chloride-channel, Ca2+-transport systems. Na+/K+- ATPase, and voltage-dependent Ca2+ channel, are sequentially operated on both apical and basolateral cytoplasmic membranes. In addition, osteoclasts contain a large amount of lysosomal enzymes (cathespsin C, beta-glycerophosphatase, beta-glucuronidase, etc.), which contribute to degrade the bone organic matrices exposed in the resorption cavity. These enzymes bind to the mannose-6-phosphate receptor on Golgi apparatus, are transported to the ruffled border and are **secreted** into the **extracellular** compartment in an exocytotoxic manner. Osteoclasts also have a high tartrate-resistant acid phosphatase activity which is currently used as a marker enzyme osteoclastic differentiation. Osteoclasts are considered to develop from hematopoietic stem cells. So far, the following four

different pathways of the differentiation of osteoclast are proposed: the precursors of osteoclast develop (1) from multilineage hematopoietic cells via a completely separate differentiation line, (2) from granulocyte macrophage-colony forming cells, (3) from committed but proliferative monocyte-macrophage, and (4) from mature and unproliferative monocyte-macrophage. However, the differentiation line of the osteoclasts has still to be elucidated. The formation of osteoclasts as well as that of other hematopoietic cells is strongly regulated by many cytokines [interleukin (IL)-1, IL-3, IL-6, M-colony stimulating factor (CSF), and GM-CSF]. 1,25-Dihydroxyvitamin D3 and parathyroid hormone also stimulate the differentiation of osteoclast precursors. However, the mature osteoclasts do not possess the receptors for these hormones. This means that as differentiation proceeds, the receptors for PTH and 1,25 (OH2D3 disappear on the osteoclasts. Thus, such a change in the number of receptor sites of osteotropic factors plays an important role in regulation of osteoclastic differentiation. The osteoclasts, of course, are present only in bone tissue. In view of this, stromal cells in bone tissue, including osteoblasts, are thought to have an important and physiological role in regulating osteoclastic formation and function. At present, a lot of evidence has been reported that osteoblastic and preadipocytic cells strongly and significantly modify the differentiation and activation by a cell-cell contact and/or **humoral factors secreted** by them. The elucidation of these interactions is one of the major subjects in the bone field.

L18 ANSWER 8 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1990:473376 BIOSIS
DOCUMENT NUMBER: PREV199090112796; BA90:112796
TITLE: TUMOR-INDUCED HOST STROMAL-CELL TRANSFORMATION INDUCTION OF MOUSE SPINDLE-CELL FIBROSARCOMA NOT MEDIATED BY GENE TRANSFER.
AUTHOR(S): RUSSELL P J [Reprint author]; BROWN J; GRIMMOND S; STAPLETON P; RUSSELL P; RAGHAVAN D; SYMONDS G
CORPORATE SOURCE: CHILDREN'S MEDICAL RES FOUNDATION, PO BOX 61, CAMPERDOWN, SYDNEY 2050, NSW
SOURCE: International Journal of Cancer, (1990) Vol. 46, No. 2, pp. 299-309.
CODEN: IJCNAW. ISSN: 0020-7136.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 25 Oct 1990
Last Updated on STN: 25 Oct 1990

AB Tumuor-induced host-cell transformation has been addressed by examining human tumours in situ and following xenograft to nude mice. We have found evidence for the transformation of host fibroblasts both in vivo and following the introduction of the tumours to in vitro culture. The in vitro culture of one such xenograft-derived from a human prostatic adenocarcinoma-resulted in the outgrowth of a transformed aneuploid mouse cell line. This transformed line was tumourigenic both in BALB/c nu/nu (nude) mice and in heterozygous nu/+ mice, with the morphology of a spindle-cell sarcoma. The cell line did not express human isozymes or human histocompatibility antigens, nor were human chromosomes present. Moreover, human DNA sequences were not detected by humans Alu repeat sequence element probing in the transformed cell line grown either in vitro or in vivo. The line contained retroviral long terminal repeat sequences but there was no evidence of proviral activation. These findings indicate that tumour cells may cause transformation of neighbouring stromal cells; that this transformation may proceed in the

absence of DNA transfer or activation of endogenous proviruses; and that the means of this observed **transformation** may involve **humoral factors** elaborated by the tumour cells.

L18 ANSWER 9 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1990:178468 BIOSIS
DOCUMENT NUMBER: PREV199089095638; BA89:95638
TITLE: THE INHIBITORY EFFECT OF PARTIAL HEPATECTOMY ON THE GROWTH RATE OF EHRLICH'S TUMOR AND PLISS LYMPHOSARCOMA.
AUTHOR(S): UDINTSEV S N [Reprint author]; SHAKHOV V P
CORPORATE SOURCE: RES INST PHARMACOL, TOMSK SCI CENT, ACAD MED SCI USSR, TOMSK, USSR
SOURCE: Voprosy Onkologii (St. Petersburg), (1989) Vol. 35, No. 9, pp. 1072-1075.
CODEN: VOONAW. ISSN: 0507-3758.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: RUSSIAN
ENTRY DATE: Entered STN: 10 Apr 1990
Last Updated on STN: 10 Apr 1990

AB In experiments with transplantable tumors, partial hepatectomy, Rhodiola roseae extracts or their combination were shown to inhibit the rate of Ehrlich's tumor and Pliss' lymphosarcoma as well as dissemination of the latter. These effects are to a certain extent attributed to production of **humoral factors** by the liver **inhibiting** clonogenic **activity** of tumor cells in vivo and in vitro.

L18 ANSWER 10 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1990:156163 BIOSIS
DOCUMENT NUMBER: PREV199089083581; BA89:83581
TITLE: BIOCHEMICAL STUDIES ON DERMAL FIBROBLASTS FROM PSORIATIC PATIENTS MEMBRANE PHOSPHOLIPID TURNOVER INDUCED BY MITOGENIC STIMULATION.
AUTHOR(S): KUWAHARA M [Reprint author]
CORPORATE SOURCE: DEP DERMATOL, GIFU UNIV SCH MED, GIFU 500, JPN
SOURCE: Acta Scholae Medicinalis Universitatis in Gifu, (1989) Vol. 37, No. 4, pp. 693-719.
CODEN: GDIKAN. ISSN: 0072-4521.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: JAPANESE
ENTRY DATE: Entered STN: 27 Mar 1990
Last Updated on STN: 28 Mar 1990

AB Psoriasis is a multifactorial genetic skin disease characterized by inflammation, epidermal hyperplasia, and abnormal differentiation. Although epidermal hyperplasia and abnormal differentiation have been variously attributed to intrinsic epidermal abnormalities, aberrations in the underlying dermis, change in the microvasculature, abnormal immunological system and circulating **humoral factors**, recent interest has been focused on the possible role of the dermal fibroblasts. Psoriatic fibroblasts were reported to show unusual properties; 1) cultured fibroblasts from both involved and uninvolved psoriatic skin proliferate faster than normal fibroblasts and exhibit increase in glycosaminoglycan content and protein synthesis; 2) psoriatic fibroblasts are hyperresponsible to unidentified mitogenic factors in human serum. Phosphoinositide turnover was recently known to play an important role in regulating various cellular functions including **secretion**, metabolism, growth and differentiation. Several **extracellular** signals such as certain hormones and some growth

factors cause hydrolysis of phosphatidylinositol 4,5-bisphosphate (PIP2) and this reaction generates two second messengers; inositol 1,4,5-trisphophate (IP3) inducing calcium mobilization from intracellular sources and diacylglycerol activating protein kinase C (PKc). As psoriatic fibroblasts show hyperresponsibility and increased proliferative activity, it is conceivable that psoriatic fibroblasts may be altered at certain steps of signal transduction. In this study we have examined mitogen-induced phosphoinositide turnover and distribution of PKc activity in fibroblasts from psoriatic patients. Fetal calf serum (FCS)- or platelet-derived growth factor (PDGF)-induced incorporation of [32P]Pi into phosphatidic acid and phosphoinositides was found to be significantly higher in psoriatic fibroblasts than in normal cells. FCS-induced formation of inositol phosphates over basal level in the normal and psoriatic fibroblasts prelabelled with myo-[2-3H]inositol was 143.2 ± 24.3 vs 208.6 ± 41.9 (%) (mean ± SD) for inositol monophosphate, 146.4 ± 28.3 vs 203.2 ± 55.0 (%) for inositol bisphosphate, 170.8 ± 22.0 vs 235.6 ± 48.6 (%) for inositol trisphosphate. FCS-induced **extracellular** release of [3H] arachidonic acid from fibroblasts prelabelled with [3H] arachidonate was also found to be significantly higher in psoriatic fibroblasts. PKc activity was measured in the membrane and cytosolic fractions of normal and psoriatic fibroblasts. The psoriatic fibroblasts displayed higher membrane-associated PKc activity than normal cells. In contrast, no significant difference in PKc activities was observed in cytosolic fractions from normal and psoriatic fibroblasts. The calmodulin level in fibroblasts from psoriatic patients was not altered. These findings indicate that the psoriatic fibroblasts elicited enhanced turnover of mitogen induced phosphoinositides, suggesting a possible role in the pathogenesis of psoriasis.

L18 ANSWER 11 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1988:306397 BIOSIS
DOCUMENT NUMBER: PREV198886023435; BA86:23435
TITLE: DECREASED **EXTRACELLULAR** MATRIX PRODUCTION IN SCURVY INVOLVES A **HUMORAL FACTOR** OTHER THAN ASCORBATE.
AUTHOR(S): OYAMADA I [Reprint author]; BIRD T A; PETERKOFSKY B
CORPORATE SOURCE: LAB BIOCHEM, NATL CANCER INST, BETHESDA, MD 20892, USA
SOURCE: Biochemical and Biophysical Research Communications, (1988) Vol. 152, No. 3, pp. 1490-1496.
CODEN: BBRCA9. ISSN: 0006-291X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 3 Jul 1988
Last Updated on STN: 3 Jul 1988

AB Our recent studies suggested tht decreased collagen synthesis in bone and cartilage of scorbutic guinea pigs was not related to ascorbate-dependent proline hydroxylation. The decrease paralleled scurvy-induced weight loss and reduced proteoglycan synthesis. Those results led us to propose that the effects of ascorbate deficiency on **extracellular** matrix synthesis were caused by changes in **humoral factors** similar to those that occur in fasting. Here we present evidence for this proposal. Exposure of chick embryo chondrocytes to scorbutic guinea pig serum, in the presence of ascorbate, led to effects on **extracellular** matrix synthesis similar to those seen in scorbutic animals. The rates of collagen and proteoglycan synthesis were reduced to approximatly 30-50% of the levels in cells cultured in normal guinea pig serum plus ascorbate, but proline hydroxylation and procollagen **secretion** were unaffected. Similar results were obtained with

serum from fasted guinea pigs supplemented in vivo with ascorbtae. The growth rate of the chondrocytes was not significantly affected by scorbutic guinea pig serum.

L18 ANSWER 12 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1988:79307 BIOSIS
DOCUMENT NUMBER: PREV198834035826; BR34:35826
TITLE: IMMUNE MODULATORS AS ANTIVIRAL AGENTS.
AUTHOR(S): STEELE R W [Reprint author]; CHARLTON R K
CORPORATE SOURCE: ARKANSAS CHILDREN'S HOSP, 800 MARSHALL ST, LITTLE ROCK, ARKANSAS 72202, USA
SOURCE: Clinics in Laboratory Medicine, (1987) Vol. 7, No. 4, pp. 911-924.
ISSN: 0272-2712.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 2 Feb 1988
Last Updated on STN: 2 Feb 1988

L18 ANSWER 13 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1987:381633 BIOSIS
DOCUMENT NUMBER: PREV198784068130; BA84:68130
TITLE: CHARACTERIZATION OF HEMATOLOGIC MALIGNANCIES BY FLOW CYTOMETRY.
AUTHOR(S): BARLOGIE B [Reprint author]; MCLAUGHLIN P; ALEXANIAN R
CORPORATE SOURCE: DEP HEMATOL, MD ANDERSON HOSP AND TUMOR INST, 6723 BERTNER AVE-BOX 55, HOUSTON, TX 77030, USA
SOURCE: Analytical and Quantitative Cytology and Histology, (1987) Vol. 9, No. 2, pp. 147-155.
CODEN: AQCHED. ISSN: 0884-6812.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 5 Sep 1987
Last Updated on STN: 5 Sep 1987
AB The quantitative assessment of cellular DNA and RNA content by flow cytometry to provide useful information for both diagnosis and prognosis of patients with hematologic malignancies is reviewed. While the characterization of cell surface antigens seems to be more germane to questions of the normal cell counterpart (stage) of malignant transformation and the biology of regulation of proliferation and differentiation by cell-cell contact and **humoral factors** , **DNA**-derived and **RNA**-derived parameters were surprisingly sensitive in the distinction of major morphologic groups, drug sensitivity and long-term prognosis. Our findings to date in the study of leukemias, lymphomas and myelomas are summarized.

L18 ANSWER 14 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1987:342818 BIOSIS
DOCUMENT NUMBER: PREV198784051761; BA84:51761
TITLE: THE ROLE OF ERYTHROCYTES IN THE REGULATION OF THE ACTIVITY OF THE BODY'S NONSPECIFIC RESISTANCE FACTORS IN TOXIC LESION OF THE LIVER.
AUTHOR(S): STEPANOV YU B [Reprint author]; CHALYI G A; PROKOPENKO L G
CORPORATE SOURCE: KURSK MED INST, KURSK, USSR
SOURCE: Zhurnal Mikrobiologii Epidemiologii i Immunobiologii, (1986) No. 12, pp. 78-83.
CODEN: ZMEIAV. ISSN: 0372-9311.

Mitra 09/786,260

DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: RUSSIAN
ENTRY DATE: Entered STN: 8 Aug 1987
Last Updated on STN: 8 Aug 1987

AB The effect of erythrocytes on the activity of natural resistance factors in toxic hepatic lesion was studied, as was the possibility of correcting this activity by the administration of proteases and their inhibitors. The lesion was induced in rabbits by i.m. injections of carbon tetrachloride. Erythrocytes, modified by serum proteases, play the role of a negative signal in the regulation of nonspecific resistance. The possibility was shown of increasing the humoral and cellular factors of nonspecific resistance in toxic hepatic lesion by increasing the antiproteolytic activity of blood serum.

L18 ANSWER 15 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1987:295521 BIOSIS
DOCUMENT NUMBER: PREV198784025553; BA84:25553
TITLE: IMMUNOGLOBULIN A IN SEBACEOUS GLANDS.
AUTHOR(S): GEBHART W [Reprint author]; METZE D; JURECKA W; SCHMIDT J B
CORPORATE SOURCE: II UNIV-HAUTKLIN, ALSER STR 4, A-1090 WIEN
SOURCE: Wiener Klinische Wochenschrift, (1986) Vol. 98, No. 20, pp. 683-689.
CODEN: WKWOAO. ISSN: 0043-5325.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: GERMAN
ENTRY DATE: Entered STN: 6 Jul 1987
Last Updated on STN: 6 Jul 1987

AB This paper presents evidence for the presence of immunoglobulin A in human sebaceous glands. Light- and electron-microscopic immune cytochemistry techniques revealed **secretory** IgA in normal sebocytes and within pilosebaceous ducts. The **secretory** process corresponds to the well-estabilished production of IgA at the site of other internal body surfaces. Basal and suprabasal sebocytes contain IgA in linear **extracellular**, as well as aggregated intracellular patterns. However, maximal diffuse concentrations are present at the opening of the pilosebaceous duct. This distribution pattern indicates an antimicrobial protective character of IgA, corresponding to similar functions on mucous membrane surfaces. Thus, another important **humoral factor** contributing to the complex system of skin-associated lymphoid tissue is postulated.

L18 ANSWER 16 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1986:337861 BIOSIS
DOCUMENT NUMBER: PREV198682052065; BA82:52065
TITLE: SEQUENTIAL PROTOONCOGENE EXPRESSION DURING RAT LIVER REGENERATION.
AUTHOR(S): THOMPSON N L [Reprint author]; MEAD J E; BRAUN L; GOYETTE M; SHANK P R; FAUSTO N
CORPORATE SOURCE: DEP OF PATHOL AND LAB MED, DIVISION OF BIOL AND MED, BROWN UNIV, PROVIDENCE, RI 02912, USA
SOURCE: Cancer Research, (1986) Vol. 46, No. 6, pp. 3111-3117.
CODEN: CNREA8. ISSN: 0008-5472.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
ENTRY DATE: Entered STN: 22 Aug 1986
Last Updated on STN: 22 Aug 1986

Search completed by David Schreiber 308-4292

Mitra 09/786,260

AB When growth is stimulated in the normally quiescent adult rat liver by partial hepatectomy, steady state levels of messenger RNA (mRNA) for c-fos, c-myc, and p53 increased sequentially during the prereplicative phase which precedes DNA synthesis. Levels of C-fos mRNA are elevated at least 4-fold within 15 min after partial hepatectomy and decrease rapidly by 2 h; c-myc mRNA reaches maximal levels (5-fold over normal) between 30 min and 2 h after the operation. A second, transient phase of expression for both c-fos and c-myc occurs around 8 h after partial hepatectomy, p53 mRNA levels increase between 8 and 12 h after the operation (5-fold over normal) and are reflected in an elevation of steady state levels of p53 protein between 12 and 15 h after partial hepatectomy. The levels of ras p21 protein increase much later at a time of active DNA replication and cell division. Actinomycin D injected at the time of partial hepatectomy blocks the increase in c-myc at 2 h but has no effect on c-fos mRNA levels. Actinomycin D injected at 6 h only partially blocks the increase in c-myc and p53 mRNA at 8 h but does not affect c-fos mRNA. Our results suggest that the transient and sequential expression of protooncogenes during the prereplicative stage of liver regeneration is likely to reflect events associated with entry and progression of hepatocytes into the cell cycle and can serve as markers for identifying specific humoral factors involved in liver regeneration.

L18 ANSWER 17 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1985:420970 BIOSIS
DOCUMENT NUMBER: PREV198580090962; BA80:90962
TITLE: IMMUNOLOGICAL VALUES IN CHILDREN WITH ACUTE AND RECURRENT OTITIS.
AUTHOR(S): BARANOVA M V [Reprint author]; ZHURAVLEVA N V; YARLYKOV S A
CORPORATE SOURCE: DIV OTORHINOLARYNGOL, CENT RES LAB, NN BURDENKO VORONEZH MED INST, VORONEZH, USSR
SOURCE: Vestnik Otorinolaringologii, (1985) No. 2, pp. 40-43. CODEN: VORLA7. ISSN: 0042-4668.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: RUSSIAN

AB The immunological status of 187 children with acute and recurrent otitis media was studied. Specific immunity was evaluated by the degree of microbial allergy, nonspecific by common humoral factors (properdin, lysozyme, β-lysines, complement). Microbial allergy was studied using blood lymphocyte blast transformation (BLBT), the leukocytolysis test and intradermal test. The leukocytolysis test was found to be most informative in testing the infectious process in patients with otitis media. A high level of BLBT with pyococcal allergens was characteristic of acute complicated otitis. Children with recurrent otitis media showed negative BLBT, as well as unmarked leukocytolysis and intradermal tests with pyococcal allergens. Low values of microbial allergy in patients with recurrent otitis are related to unmarked immune responsiveness of the host.

L18 ANSWER 18 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1985:293191 BIOSIS
DOCUMENT NUMBER: PREV198579073187; BA79:73187
TITLE: SERUM GASTRIN IN CHRONIC RENAL FAILURE MORPHOLOGICAL AND PHYSIOLOGICAL CORRELATIONS.
AUTHOR(S): EL GHONAIMY E [Reprint author]; BARSOUM R; SOLIMAN M; EL FIKKY A; RASHWAN S; EL ROUBY O; HADDAD S; EL KHASHAB O; ZEIZ M A; HASSABALLAH N; HASSABALLAH A
CORPORATE SOURCE: DEP NEPHROL INTERN MED, UNIV CAIRO, CAIRO, EGYPT
SOURCE: Nephron, (1985) Vol. 39, No. 2, pp. 86-94.

Search completed by David Schreiber 308-4292

CODEN: NPRNAY. ISSN: 0028-2766.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB Elevated serum gastrin (SG) was reported in chronic renal failure (CRF). SG levels were studied in relation to various humoral and gastroduodenal histopatologic findings in 20 controls, 12 uremics under conservative therapy (CT), 27 patients on regular dialysis (RDT) and 8 transplanted patients (Tx). SG and parathyroid hormone (PTH) levels were estimated by radioimmunoassay (RIA), in addition serum BUN [blood urea nitrogen], creatinine, Ca2+PO43- and alkaline phosphatase (predialysis in RDT) were determined. Patients (20, 12 on CT and 8 on RDT) underwent pentagastrin (PG) stimulation test and upper gastrointestinal endoscopy with biopsy of gastric and duodenal mucosa. The mucosal samples were stained for mucopolysaccharides (MPS), nucleic acid (NA) and alkaline phosphatase (AP), and divided into intense, normal or faint staining. Mean SG was 688.71 pg/ml (CT cases), 636.2 pg/ml (RDT cases) and 280.6 pg/ml (Tx cases), all values being significantly higher than controls (118.46 pg/ml). SG level had a linear correlation with serum creatinine in CT patients and predialysis creatinine in RDT patients, but not with other parameters studied (BUN, Ca2+, PTH, PO43- AP). The incidence of gastroduodenal erosions (40%) had a significant negative correlation with SG. They were more frequent with normal MPS stain ($P = 0.01$) and NA staining ($P < 0.001$) than faint staining of gastric mucosa biopsy. The acid response to PG stimulation was inversely correlated with SG. Elevated SG may be compensatory to a decreased response of the gastroduodenal mucosa to PG. Mere retention of SG does not explain its elevation as its correlation with serum creatinine existed not only in patients on CT, but also in RDT patients. The apparently protective effect of elevated SG against gastric mucosal erosions may be partially related to its effect on gastric motility with diminution of biliary reflux. Gastric mucosal erosions seem to occur in a relatively healthy mucosa with low SG, serum Ca or PTH.

L18 ANSWER 19 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1985:16220 BIOSIS
DOCUMENT NUMBER: PREV198528016220; BR28:16220
TITLE: LOW MOLECULAR WEIGHT ANGIOGENESIS FACTOR A GROWTH FACTOR NOT UNIQUE TO TUMORS WHICH ACTIVATES PROCOLLAGENASE.
AUTHOR(S): WEISS J B [Reprint author]; ELSTOW S F; HILL C R; MCLAUGHLIN B; DAVIDSON E M; SCHOR A; AYAD S R
CORPORATE SOURCE: DEP RHEUMATOL, UNIV MANCHESTER, MED SCH, MANCHESTER M13 9PT, ENGL, UK
SOURCE: Prog. Appl. Microcirc., (1984) pp. 76-87. HAMMERSEN, F. AND O. HUDLICKA (ED.). MIKROZIRKULATION IN FORSCHUNG UND KLINIK; PROGRESS IN APPLIED MICROCIRCULATION, VOL. 4. ANGIOGENESIS; PROCEEDINGS OF THE BRITISH MICROCIRCULATION SOCIETY, BIRMINGHAM, ENGLAND, APR. 12-13, 1983. VI+90P. S. KARGER: BASEL, SWITZERLAND; NEW YORK, N.Y., USA. ILLUS. PAPER.
Publisher: Series: Mikrozirkulation in Forschung und Klinik.
CODEN: MFKLDH. ISSN: 0254-5195. ISBN: 3-8055-3883-9.
DOCUMENT TYPE: Book
Conference; (Meeting)
FILE SEGMENT: BR
LANGUAGE: ENGLISH

L18 ANSWER 20 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1982:290891 BIOSIS
DOCUMENT NUMBER: PREV198274063371; BA74:63371
TITLE: INDUCTION OF E ROSETTE PROMOTING FACTOR IN HUMAN PLASMA BY LEVAMISOLE AN ASSESSMENT IN A PATIENT WITH PARTIAL DIGEORGE SYNDROME.
AUTHOR(S): SEKI H [Reprint author]; YOKOI T; KUBO M; MORIYA N; MIYAWAKI T; NAGAOKI T; MIURA M; TANIGUCHI N
CORPORATE SOURCE: DEP PEDIATR, SCH MED, KANAZAWA UNIV, KANAZAWA CITY 920, JAPAN
SOURCE: Scandinavian Journal of Immunology, (1982) Vol. 15, No. 2, pp. 141-148.
CODEN: SJIMAX. ISSN: 0300-9475.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB A male infant with partial DiGeorge syndrome responded to weekly administration of levamisole (2.5 mg/kg of body weight) with an increase of circulating E[sheep erythrocyte]-rosette-forming T cells. Thymic hormone activity in plasma appeared to be elevated to a near-normal level of 11.6 ng thymopoietin equivalent/ml after levamisole administration. The in vitro incubation studies indicated that levamisole by itself had no E-rosette-promoting ability, but a dialyzable and relatively heat-stable plasma factor induced by levamisole in the patient and in healthy individuals had E-rosette-promoting activity for the patient's lymphocytes. Such a plasma factor could not be induced in all 4 thymectomized myasthenic subjects examined, suggesting a thymus-dependent nature of the plasma factor. Levamisole might mediate an increased secretion of **humoral factor**(s) with E-rosette-**promoting activity**, even from such a rudimentary thymus as in the partial DiGeorge syndrome.

L18 ANSWER 21 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1980:188195 BIOSIS
DOCUMENT NUMBER: PREV198069063191; BA69:63191
TITLE: MATRIX FORMATION IN THE MANDIBULAR CONDYLE OF THE RAT SULFUR-35 LABELED SULFATE INCORPORATION STUDIES.
AUTHOR(S): KATZ M [Reprint author]; KVINNSLAND S
CORPORATE SOURCE: INST ANAT, UNIV BERGEN, BERGEN, NORW
SOURCE: Acta Odontologica Scandinavica, (1979) Vol. 37, No. 3, pp. 137-145.
CODEN: AOSCAQ. ISSN: 0001-6357.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH

AB The matrix formation activity of the mandibular condylar cartilage was investigated using radioactive sulfate incorporation. The condylar cartilage was studied at various developmental stages; as an autotransplant, in situ and on a chemically defined medium. An initial decrease in the cpm/DNA was followed by an increase, until a maximum was attained for all groups, between the 14th and 17th days. Thereafter, the matrix formation activity decreased. There was a surprising likeness in the patterns of activity for all the samples investigated. Cartilagenous growth seem to be regulated, at least to some extent by 1 or more humoral factors.

L18 ANSWER 22 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1980:167061 BIOSIS
DOCUMENT NUMBER: PREV198069042057; BA69:42057
TITLE: TIME COURSE OF INCREASED COLLATERAL ARTERIAL AND VENOUS

Mitra 09/786,260

ENDOTHELIAL CELL TURNOVER AFTER RENAL ARTERY STENOSIS IN THE RAT.
AUTHOR(S): ILICH N [Reprint author]; HOLLENBERG N K; WILLIAMS D H; ABRAMS H L
CORPORATE SOURCE: PETER BENT BRIGHAM HOSP, 721 HUNTINGTON AVE, BOSTON, MASS 02115, USA
SOURCE: Circulation Research, (1979) Vol. 45, No. 5, pp. 579-582.
CODEN: CIRUAL. ISSN: 0009-7330.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Left renal artery stenosis was induced in rats and collateral formation was studied by angiography, histology and radioautography with 3H thymidine. Endothelial cell turnover was estimated by radioautography with 3H thymidine in the periureteric blood supply of 10 normal and 38 collateral-forming kidneys 1-100 days after stenosis. Periureteric arterial endothelial cell labeling showed a highly significant ($P < 0.005$) increase, apparent within 1 day and gradually falling as the vessels grew, until a baseline was reached in 35 days. A smaller but statistically significant increase in the labeling index also was found in endothelial cells of the renal vein during the 1st wk ($P < 0.01$), and had a similar time course. A marked increase in epithelial cell labeling in the ureters draining the stenotic kidneys was also evident ($P < 0.005$). Collateral vessel development is characterized by active DNA synthesis in the cellular elements, which is maximal during the 1st wk. A humoral factor is implicated in the vascular response by the parallel proliferation of venous and uretic cellular elements that are unlikely to experience the biophysical forces, such as increased blood flow or tangential wall force, which might stimulate proliferation in the arterial vessels.

L18 ANSWER 23 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1979:16871 BIOSIS
DOCUMENT NUMBER: PREV197916016871; BR16:16871
TITLE: ADAPTATION OF THE SHORTENED GUT GREATER INITIAL RESPONSE TO RESECTION THAN TO BYPASS.
AUTHOR(S): WILLIAMSON R C N; BAUER F L R; MALT R A
SOURCE: Gut, (1977) Vol. 18, No. 11, pp. A965.
CODEN: GUTTAK. ISSN: 0017-5749.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L18 ANSWER 24 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1978:123205 BIOSIS
DOCUMENT NUMBER: PREV197865010205; BA65:10205
TITLE: STIMULATION OF HEPATO CELLULAR PROLIFERATION BY A SERUM FACTOR FROM THIO ACETAMIDE TREATED RATS.
AUTHOR(S): MORLEY C G D [Reprint author]; BOYER J L
CORPORATE SOURCE: DEP BIOCHEM, RUSH PRESBYT-ST LUKE'S MED CENT, 1753 W HARRISON, CHICAGO, ILL 60612, USA
SOURCE: Biochimica et Biophysica Acta, (1977) Vol. 477, No. 2, pp. 165-176.
CODEN: BBACAQ. ISSN: 0006-3002.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: ENGLISH
AB Rats treated with thioacetamide [an hepatocarcinogen] undergo hepatocellular proliferation reminiscent of liver regeneration following partial hepatectomy. After administration (36 h) of 50 mg

thioacetamide/kg body wt to rats, 3H-thymidine incorporation into hepatic DNA reaches a peak of 78 · 103 dpm/mg DNA compared to a control of 3.2 · 103 dpm/mg DNA. Serum obtained from 6-48 h after administration of thioacetamide to rats stimulated hepatic but not kidney DNA synthesis in mice and rats. Autoradiography revealed an increase in the incorporation of labeled thymidine into the nuclei of mouse hepatocytes. The liver mitotic index was also increased. The serum factor stimulating these changes in the liver was non-dialyzable and heat stable. Thioacetamide induced liver injury appears to result in a **humoral factor** which stimulates **DNA** synthesis in rat and mouse liver, which has similar properties to a growth-stimulating factor previously identified in the serum from partially hepatectomized rats.

L18 ANSWER 25 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1977:239152 BIOSIS
DOCUMENT NUMBER: PREV197764061516; BA64:61516
TITLE: ALPHA-1 ACID GLYCO PROTEIN AND ALPHA-1 ANTI TRYPSIN AS MITOTIC INHIBITORS IN REGENERATING RAT LIVER.
AUTHOR(S): ONDA H
SOURCE: Gann, (1977) Vol. 68, No. 3, pp. 301-306.
CODEN: GANNA2. ISSN: 0016-450X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

AB Time course changes in the concentration of the plasma proteins, especially α1-acid glycoprotein and α1-antitrypsin, after partial hepatectomy were investigated. The concentration of α1-acid glycoprotein rose steadily to the highest value, about 4-fold of that of normal non-hepatectomized rats, at 27.5 h after partial hepatectomy, indicating **excretion** of the protein from hepatocytes in the residual liver during a very early period after partial hepatectomy, before hepatocytic mitosis, and thereafter fell slowly. The concentration of α1-antitrypsin decreased sharply to 1/6 of that of the non-operated control rats, at 18 h after partial hepatectomy, 10 h before the peak of mitosis, and thereafter rose steadily to the highest value above the control at 168 h, when the mitosis almost ended, suggesting a close correlation of the protein to the occurrence and suppression of mitosis of the hepatocyte. The existence of a double-layered pattern of **humoral factors** involved in cell division was suggested; α1-acid glycoprotein may be a primary mitotic inhibitor, whose intracellular concentration over a critical level inhibits cell division and, in contrast, α1-antitrypsin may be 1 of secondary mitotic inhibitors, whose **extracellular** concentration below a critical level facilitiates the **excretion** of the primary mitotic inhibitor from the cell in question, allowing cell division, and that over a critical level impedes the **excretion** of the primary one from the cell in question, inhibiting cell division. Based on these findings, the essential part of the regulatory mechanism of cell division in the regenerating rat liver was concretely discussed.

L18 ANSWER 26 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1977:141308 BIOSIS
DOCUMENT NUMBER: PREV197763036172; BA63:36172
TITLE: THE EFFECT OF SALINE INDUCED **EXTRACELLULAR** VOLUME EXPANSION ON THE KIDNEY FUNCTION.
AUTHOR(S): KOVER G; BARTHA J; TOST H
SOURCE: International Urology and Nephrology, (1976) Vol. 8, No. 3, pp. 237-245.

CODEN: IURNAE. ISSN: 0301-1623.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
AB Functional parameters of renal function of non-hydrated and hydrated dogs (saline-infused to an extent of 1-2% of the body wt) were compared. Directly measured renal blood flow and total renal vascular resistance were the same in the 2 groups. No difference was found in glomerular filtration rate, the clearance of inulin was the same in the 2 groups. There was no important difference in PAH [p-aminohippuric acid] clearance and PAH extraction. In the hypervolemic group, Na and water **excretion** was about 3-fold that of the non-hydrated animals. Plasma protein concentration was significantly lower in the hydrated group. Glomerular factors were not responsible for the increase of Na and water **excretion**. The decrease of tubular reabsorption is attributed partly to decreased protein concentration, partly to unknown (perhaps natriuretic) **humoral factors**.

L18 ANSWER 27 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1977:82326 BIOSIS
DOCUMENT NUMBER: PREV197713082326; BR13:82326
TITLE: **HUMORAL FACTORS** INFLUENCING LYMPHOCYTE **TRANSFORMATION.**
AUTHOR(S): NELSON D S; GATTI R A
SOURCE: (1976) pp. 261-341. KALLOS, PAUL, BYRON H. WAKSMAN AND ALAIN DE WECK (ED.). PROGRESS IN ALLERGY, VOL. 21. XIV+408P. ILLUS. S. KARGER: BASEL, SWITZERLAND; NEW YORK, N.Y., USA. ISBN 3-8055-2342-4.
DOCUMENT TYPE: Book
FILE SEGMENT: BR
LANGUAGE: Unavailable

L18 ANSWER 28 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1977:33640 BIOSIS
DOCUMENT NUMBER: PREV197713033640; BR13:33640
TITLE: INCREASED COLLATERAL AND VENOUS ENDOTHELIAL TURNOVER AFTER RENAL ARTERY STENOSIS.
AUTHOR(S): COWAN D F; CONNELLY C M; WILLIAMS D H; HOLLENBERG N K; ABRAMS H L
SOURCE: Investigative Radiology, (1976) Vol. 11, No. 5, pp. 423. CODEN: INVRAV. ISSN: 0020-9996.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L18 ANSWER 29 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1976:222326 BIOSIS
DOCUMENT NUMBER: PREV197662052326; BA62:52326
TITLE: THE PATHOGENESIS OF POST OBSTRUCTIVE DIURESIS THE ROLE OF CIRCULATING NATRIURETIC AND DIURETIC FACTORS INCLUDING UREA.
AUTHOR(S): HARRIS R H; YARGER W E
SOURCE: Journal of Clinical Investigation, (1975) Vol. 56, No. 4, pp. 880-887. CODEN: JCINAO. ISSN: 0021-9738.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable
AB To investigate the pathogenesis of post-obstructive diuresis, a state of

functional anuria during ureteral obstruction was created in awake rats by bilateral obstruction (BO), unilateral obstruction and contralateral nephrectomy (UO-Nx), or unilateral obstruction and continuous i.v. reinfusion of urine from the intact contralateral kidney (UO-reinf). These groups were compared with unilaterally obstructed (UO) and sham-operated control (sham) rats. After release of obstruction of 24 h duration, mean urine flows .ovrhdot.V and Na **excretion** rates (UNaV) were significantly elevated above those of sham rats in BO, UO-Nx, and UO-reinf animals, but slightly decreased in UO rats. Glomerular filtration rates were comparably depressed in UO, BO, UO-Nx, and UO-reinf rats. Post-obstructive diuresis is probably due to 1 or more circulating diuretic factors that are normally **excreted** in the urine, and which, when retained (as in BO or UO-Nx rats) or returned to the circulation (as in UO-reinf rats), exert a diuretic effect. In additional experiments, UO rats infused with urea exhibited post-obstructive diuresis, if **extracellular** volume contraction was prevented. Urea may be an important diuretic factor in post-obstructive diuresis, but does not exclude possible roles for other **humoral factors**. The intact kidney of UO-reinf rats displayed a massive unilateral diuresis and natriuresis, further suggesting the presence of potent diuretic factors in the urine. A marked increase in the fractional **excretion** of glomerular filtrate (.ovrhdot.V/GFR) by the intact kidney suggests that this diuresis may be attributable, in part, to impaired proximal reabsorption.

L18 ANSWER 30 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1971:37303 BIOSIS
DOCUMENT NUMBER: PREV197107037303; BR07:37303
TITLE: **HUMORAL FACTOR** TRIGGERING **DNA** SYNTHESIS AFTER PARTIAL HEPATECTOMY IN THE RAT.
AUTHOR(S): SAKAI A
SOURCE: Nature (London), (1970) Vol. 228, No. 5277, pp. 1186-1187. CODEN: NATUAS. ISSN: 0028-0836.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L18 ANSWER 31 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1969:209268 BIOSIS
DOCUMENT NUMBER: PREV196950012258; BA50:12258
TITLE: EXPERIMENTAL STUDIES ON THE ISOLATED **HUMORAL FACTOR** WHICH **PROMOTES** THE SECRETORY **ACTIVITY** OF THE GASTRIC CHIEF CELLS AND THE EXOCRINE PANCREATIC CELLS I RAT.
AUTHOR(S): FUJIE K; KOIKE T; MABUCHI Y
SOURCE: Archivum Histologicum Japonicum, (1966) Vol. 27, No. 1/5, pp. 247-257.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L18 ANSWER 32 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1969:147486 BIOSIS
DOCUMENT NUMBER: PREV196950085486; BA50:85486
TITLE: EXPERIMENTAL STUDIES ON THE ISOLATED **HUMORAL FACTOR** WHICH **PROMOTES** THE SECRETORY **ACTIVITY** OF THE GASTRIC CHIEF CELLS AND THE EXOCRINE PANCREATIC CELLS II AMINO-ACIDS AND RELATED COMPOUNDS IN THE EXTRACT OF THE GASTRIC MUCOSA RAT.

AUTHOR(S): FUJIE K; MABUCHI Y; ISHIMURA K; HIRAOKA J
SOURCE: Wakayama Medical Reports, (1967) Vol. 12, No. 3, pp. 99-108.
CODEN: WKMRAH. ISSN: 0511-084X.
DOCUMENT TYPE: Article
FILE SEGMENT: BA
LANGUAGE: Unavailable

L18 ANSWER 33 OF 85 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
ACCESSION NUMBER: 1969:78732 BIOSIS
DOCUMENT NUMBER: PREV196905078732; BR05:78732
TITLE: MOLECULAR ASPECTS OF MAMMALIAN LIVER REGENERATION.
AUTHOR(S): BUCHER N L R
SOURCE: American Zoologist, (1969) Vol. 9, No. 3, pp. 598.
CODEN: AMZOAF. ISSN: 0003-1569.
DOCUMENT TYPE: Article
FILE SEGMENT: BR
LANGUAGE: Unavailable

L18 ANSWER 34 OF 85 MEDLINE on STN
ACCESSION NUMBER: 1998205402 MEDLINE
DOCUMENT NUMBER: 98205402 PubMed ID: 9543820
TITLE: On the roles of **extracellular** matrix remodeling by gelatinase B.
AUTHOR: Opdenakker G
CORPORATE SOURCE: Rega Institute, Leuven.
SOURCE: VERHANDELINGEN - KONINKLIJKE ACADEMIE VOOR GENEESKUNDE VAN BELGIE, (1997) 59 (6) 489-514. Ref: 74
Journal code: 0413210. ISSN: 0302-6469.
PUB. COUNTRY: Belgium
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199806
ENTRY DATE: Entered STN: 19980618
Last Updated on STN: 20000303
Entered Medline: 19980609

AB Human **extracellular** matrix is constantly remodelled by de novo synthesis of structural components and by degradation of the matrix proteins by various proteinases. The **secreted** proteolytic enzymes are regulated at several levels: by control of gene transcription, by glycosylation, by specific inhibitors and by enzyme activation processes. The latter level most often involves clipping of a proenzyme or zymogen into an active proteinase. A series of such activation reactions leads to enzyme cascades. Whereas proteolytic activation is an all-or-none phenomenon, glycosylation usually has a restricted or fine-tuning effect on the catalytic activity of enzymes. Commonly, a two- to threefold reduction in specific activity is imposed by N-glycosylation on each member of the multi-enzyme chain. In a series comprising e.g. four enzymes, this can lead to significant influences (2(4)-3(4)-fold increase) on the substrate converting activity of the terminal member of a cascade. Gelatinase B is a terminal member of the protease cascade which leads to matrix degradation. It cleaves gelatins (denatured collagens or collagen fragments after digestion by collagenase) and other substrates and is thought to be involved in matrix remodeling during the normal processes of embryogenesis, tissue remodeling and development. Gelatinase B expression is upregulated in pathological states such as invasion of

cancer cells and when leukocytes are released from the bone marrow and migrate towards an inflammatory focus. Proteases, including gelatinase B, are transcriptionally regulated by cytokines and directly by the activation processes. The gene regulation of enzyme inhibitors as well as other **humoral factors**, which contribute to protease activation, influence protease activities in an indirect way. Proteases might also play a role in the pathophysiology of chronic inflammation and autoimmunity by cleaving **extracellular** structural proteins and by generating proteolytic fragments. Indeed, these remnant fragments antigenically resemble the original precursor proteins, but are structurally and quantitatively different and may provoke an autoimmune response. Application of the knowledge of the structure, function and regulation of gelatinase B has contributed to the understanding of the mechanism of action of some gelatinase-inhibiting antirheumatic drugs and promises to contribute further to the development of novel treatment strategies for autoimmune diseases such as multiple sclerosis and for invasive cancers.

L18 ANSWER 35 OF 85 MEDLINE on STN
ACCESSION NUMBER: 97045835 MEDLINE
DOCUMENT NUMBER: 97045835 PubMed ID: 8890757
TITLE: Nitric oxide in vascular remodeling.
AUTHOR: Nakaki T; Kato R
CORPORATE SOURCE: Department of Pharmacology, Keio University School of Medicine, Tokyo, Japan.
SOURCE: JAPANESE HEART JOURNAL, (1996 Jul) 37 (4) 431-45.
Journal code: 0401175. ISSN: 0021-4868.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199611
ENTRY DATE: Entered STN: 19961219
Last Updated on STN: 19961219
Entered Medline: 19961120

AB Vascular remodeling is a series of structural changes in blood vessels. Therefore, it may be conceivable that any **humoral factors** and physical forces acting on the vascular wall are involved in the remodeling processes. Cells in the vascular wall respond to the humoral and physical factors and may induce **extracellular** matrix, cell adhesion molecules and other **humoral factors**. They even grow so that cellular and noncellular components deviate from the normal population. We discuss the relationship among nitric oxide (NO), pressure and growth of smooth muscles. Decreased NO may be a consequence as well as a cause of high pressure. Similarly, high pressure is a cause as well as a consequence of decreased NO. Remodeling could be a consequence of both high pressure and decreased NO. Thus, vascular remodeling is a complex dynamic state, where any causes and results are influenced by each other. Interaction of NO and pressure is one such complexity.

L18 ANSWER 36 OF 85 MEDLINE on STN
ACCESSION NUMBER: 93076226 MEDLINE
DOCUMENT NUMBER: 93076226 PubMed ID: 1446257
TITLE: The Sertoli cell in vivo and in vitro.
AUTHOR: Jegou B
CORPORATE SOURCE: CJF INSERM 91-04, Universite de Rennes I, Bretagne, France.
SOURCE: CELL BIOLOGY AND TOXICOLOGY, (1992 Jul-Sep) 8 (3) 49-54.
Ref: 27

Search completed by David Schreiber 308-4292

Journal code: 8506639. ISSN: 0742-2091.
PUB. COUNTRY: Netherlands
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199212
ENTRY DATE: Entered STN: 19930129
Last Updated on STN: 19930129
Entered Medline: 19921229

AB The Sertoli cell extends from the basement membrane of the seminiferous tubule towards its lumen; it sends cytoplasmic processes which envelop different generations of germ cells. The use of Sertoli cell culture began to develop in 1975. To reduce germ cell contamination immature animals are generally used as Sertoli cell donors. Sertoli cell mitosis essentially occurs in sexually immature testes in mammals; mitosis of these cells is observed in vitro during a limited period of time. Sertoli cells in vivo perform an impressive range of functions: structural support of the seminiferous epithelium, displacement of germ cells and release of sperm; formation of the Sertoli cell blood-testis barrier; **secretion** of factors and nutrition of germ cells; phagocytosis of degenerating germ cells and of germ cell materials. Some of the Sertoli cell functions can be studied in vitro. The recent development of Sertoli cell culture on permeable supports (with or without **extracellular** matrix) has resulted in progress in understanding the vectorial **secretion** of several Sertoli cell markers. In addition to FSH and testosterone, several other **humoral factors** are known to influence Sertoli cell function. Furthermore, myoid cells bordering the tubules as well as germ cells are capable of regulating Sertoli cell activity. Sertoli cells are the most widely used testicular cells for in vitro toxicology. The testis is highly vulnerable to xenobiotics and radiations, yet the number of studies undertaken in this field is insufficient and should be drastically increased.

L18 ANSWER 37 OF 85 MEDLINE on STN
ACCESSION NUMBER: 90358545 MEDLINE
DOCUMENT NUMBER: 90358545 PubMed ID: 1697156
TITLE: Palliative therapy in cancer. 4. Palliation of the symptoms from a malignant tumor. (2).
AUTHOR: Urushizaki I
CORPORATE SOURCE: Sapporo Medical College, East Sapporo Hospital.
SOURCE: GAN TO KAGAKU RYOHO [JAPANESE JOURNAL OF CANCER AND CHEMOTHERAPY], (1990 Aug) 17 (8 Pt 1) 1525-35. Ref: 32
Journal code: 7810034. ISSN: 0385-0684.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: Japanese
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199009
ENTRY DATE: Entered STN: 19901026
Last Updated on STN: 19960129
Entered Medline: 19900925

AB Patients suffering from malignant disease will probably develop some metabolic abnormality of electrolytes. Hypernatremia is defined as an elevation of serum natrium over 150 mEq/l and caused by decrease of water intake, low level of ADH **secretion** and impaired response of

kidney to ADH. Hyponatremia below 135 mEq/l of serum natrium is caused by SI-DAH, sick cell syndrome and increased loss of natrium from the kidney. On the other hand, hyperkalemia is defined as an elevation of serum kalium over 5.0 mEq/l and caused by acute tumor cell lysis syndrome, adrenal and renal insufficiency. Hypokalemia is caused by kalium loss from kidney and hypersecretion of mineral corticoid. Hypercalcemia is found in the high frequency among patients with malignant disease. Hypercalcemia is defined as an elevation of serum calcium over 11.0 mg/dl, although the most important aspect is the level of ionized calcium. The excess calcium causes defective urinary concentration with polydipsia, nausea and vomiting leading to volume depletion. At serum calcium levels about 13.8 mg/dl, there may be rapid deterioration or renal function, dehydration, coma and cardiac arrhythmias. Hypercalcemia is rarely the first manifestation of cancer. There are three principle pathogenic causes of malignant hypercalcemia, 1) hypercalcemia is a feature of several hematological cancers, including Burkitt's lymphoma, T cell leukemia, but most commonly with myeloma. The hypercalcemia in these myeloma patients is due to the **secretion** of an osteoclast activator, a lymphokine by the myeloma cells. 2) all patients with bony metastases have biochemical evidence of increased bone resorption. However, not all patients with bony metastases develop hypercalcemia. Probably the hypercalcemia is due partially to increased renal tubular reabsorption of calcium, mediated by a **humoral factor**, with activity similar to that of parathormone. 3) hypercalcemia in the patients without bony metastases is due to increased bone resorption caused by the ectopic **secretion** by the tumor. Mildly symptomatic patients will benefit from modest salt loading. They are dehydrated and replacement of the **extracellular** fluid is the first line of treatment. This may require 4-10 l normal saline/24 h. In addition, frusemide will increase calcium **excretion**. Calcitonin may be given subcutaneously or intravenously to refuse the mobilisation of calcium from bone. Glucocorticoids are unhelpful, but will prolong the effect of calcitonin. A diphosphonate is also useful.

L18 ANSWER 38 OF 85 MEDLINE on STN
ACCESSION NUMBER: 90278583 MEDLINE
DOCUMENT NUMBER: 90278583 PubMed ID: 2637347
TITLE: Mechanism of hypercalcemia associated with malignancy: interactions between induction of hypercalcemia and autonomous growth in VX2 cancer cells.
AUTHOR: Kato I
SOURCE: OSAKA DAIGAKU SHIGAKU ZASSHI. JOURNAL OF THE OSAKA UNIVERSITY DENTAL SOCIETY, (1989 Jun) 34 (1) 142-73. Journal code: 19430280R. ISSN: 0473-4629.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Japanese
FILE SEGMENT: Dental Journals
ENTRY MONTH: 199007
ENTRY DATE: Entered STN: 19900824
Last Updated on STN: 19970203
Entered Medline: 19900719

AB Hypercalcemia is one of well-recognized paraneoplastic syndromes and occurs occasionally in patients with oral cancers. Because bone is the richest source of calcium in the body, it has been proposed that humoral bone resorbing factors which are released by tumors are responsible for the pathogenesis of hypercalcemia. In the present study, partial purification and identification of bone resorbing **humoral factors** were carried out employing VX2 squamous cell carcinoma

which has been known to induce hypercalcemia in rabbits. In addition, extra- and intra-cellular mechanisms which are operating to confer autonomous growth on VX2 cancer cells were also studied. VX2 carcinoma induced marked hypercalcemia not only in rabbits but also in nude mice in parallel with tumor enlargement. Administration of indomethacin (INDO), a prostaglandin (PG) synthesis inhibitor, before onset of the hypercalcemia prevented an elevation of serum calcium levels and growth of the tumor. INDO, however, failed to decrease serum calcium levels and tumor growth when administered after development of the hypercalcemia and tumor enlargement. These results indicate that not only PGs but other **humoral factors** are involved in the pathogenesis of the hypercalcemia seen in VX2 cancer-bearing animals. VX2 cancer cells in culture retained their cancerous phenotypic properties, synthesized PGE2, PGF2 alpha and 6-keto PGF1 alpha and **secreted** highly levels of PGE2, a powerful bone resorber, into the culture medium in a time- and cell density-dependent manner. The culture supernatants also contained a trypsin- and heat-sensitive bone risorbing factor (BRF) with a molecular weight of approximately 20kD. BRF was presumed to be similar to parathyroid hormone related protein (PTHrP) from its biological and biochemical behaviors. Both PGE2 and PTHrP promoted VX2 cell growth, thus suggesting that these two substances are autocrine growth factors for VX2 cells. Calcium stimulated VX2 cell growth and **secretion** of PGE2 and BRF (PTHrP) in a concentration-dependent fashion. Stimulation of VX2 cell proliferation by PGE2 and PTHrP was closely correlated with a transient elevation of intracellular free calcium ion ([Ca2+]i). [Ca2+]i elevated transiently in response to PGE2 and PTHrP was shown to be supplied by influx of **extracellular** free calcium ion ([Ca2+]e) through calcium channel present in plasma membrane. Involvement of protein kinase C in autocrine growth stimulation of VX2 cells by PGE2 and PTHrP was unclear. These results demonstrate that PGE2 and PTHrP **secreted** by VX2 cancer cells not only induce hypercalcemia but promote VX2 cell growth as autocrine growth factors.(ABSTRACT TRUNCATED AT 400 WORDS)

L18 ANSWER 39 OF 85 MEDLINE on STN
ACCESSION NUMBER: 90253804 MEDLINE
DOCUMENT NUMBER: 90253804 PubMed ID: 2160257
TITLE: Transforming growth factor-beta expression in fibropapillomas induced by bovine papillomavirus type 1, in normal bovine skin, and in BPV-1-transformed cells.
AUTHOR: Van Obberghen-Schilling E; Thompson N L; Flanders K C; Sporn M B; Lambert P F; Baker C C
CORPORATE SOURCE: Laboratory of Chemoprevention, National Cancer Institute, National Institutes of Health, Bethesda, Maryland 20892.
SOURCE: GROWTH FACTORS, (1990) 2 (2-3) 111-21.
Journal code: 9000468. ISSN: 0897-7194.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199006
ENTRY DATE: Entered STN: 19900720
Last Updated on STN: 19900720
Entered Medline: 19900625

AB There is substantial evidence to suggest that transforming growth factor-beta (TGF-beta) plays an important role in wound healing and tissue repair as well as in carcinogenesis. It has also been observed that naturally occurring bovine papillomavirus type 1 (BPV-1)-induced bovine fibropapillomas occur predominantly at traumatized sites of the body,

suggesting that **humoral factors** released in wounds might be important for papillomavirus infection. We have therefore investigated the possible role of TGF-beta 1 in BPV-1 infections. Two antipeptide antibodies which recognize different epitopes in the N-terminus of TGF-beta 1 were used to localize TGF-beta 1 in bovine fibropapillomas and normal bovine skin using immunohistochemical methods. Staining by anti-LC(1-30) is intracellular in suprabasal keratinocytes of the epidermis as well as the hair follicles and sebaceous glands and correlates with known sites of TGF-beta 1 mRNA synthesis. Anti-CC(1-30) staining is **extracellular** in the immediately underlying dermis. Neither the pattern nor intensity of TGF-beta 1 staining was affected by BPV-1 infection. C127 cells and BPV-1-transformed C127 cells were compared for TGF-beta 1 mRNA expression and **secretion** of TGF-beta 1 peptide. Although the levels of messenger RNA and **secreted** TGF-beta 1 peptide were similar in both cell types, five- to six-fold greater amounts of TGF-beta-like activity per cell was detected in media conditioned by the uninfected cells. TGF-beta 1 treatment had no effect on the growth rate of either cell type or on BPV-1 gene expression in the transformed cells.

L18 ANSWER 40 OF 85 MEDLINE on STN
ACCESSION NUMBER: 89146059 MEDLINE
DOCUMENT NUMBER: 89146059 PubMed ID: 2976174
TITLE: Liver-specific growth factors.
AUTHOR: Fleig W E
CORPORATE SOURCE: Dept. of Internal Medicine II (Gastroenterology and Nutrition), University of Ulm, FRG.
SOURCE: SCANDINAVIAN JOURNAL OF GASTROENTEROLOGY. SUPPLEMENT, (1988) 151 31-6. Ref: 50
Journal code: 0437034. ISSN: 0085-5928.
PUB. COUNTRY: Norway
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198903
ENTRY DATE: Entered STN: 19900306
Last Updated on STN: 20000303
Entered Medline: 19890324

AB Experimental evidence of the existence of liver-specific growth factors has been collected for more than two decades. Blood-borne growth-promoting activity of hepatocytes may be separated into plasma and platelet-derived factors. Several groups have observed the stimulation of hepatocyte growth in vitro by some platelet-associated activity, which was recently isolated from rat platelets as a 27-kDa protein called platelet growth factor (PGF). There is evidence of at least two different growth factors for hepatocytes derived from platelet-poor rat plasma, 'hepatopoietin' A and B. The partial purification of several other factors has been reported. One of these factors was prepared from the plasma of patients with fulminant hepatic failure. In addition to these **humoral' factors**, cytosolic growth-**promoting** **activity** has been partially purified by several groups. While the humoral factors described so far are only active on normal hepatocytes, the cytosolic 'hepatic stimulator substance' (HSS) also promotes the proliferation of differentiated hepatoma cells. In addition, it appears to depend on the permissive action of epidermal growth factor (EGF). None of the liver-specific growth factors except PGF has been purified to homogeneity. Thus, their significance for the control of the

proliferation of normal and transformed hepatocytes is still an unsettled issue.

L18 ANSWER 41 OF 85 MEDLINE on STN
ACCESSION NUMBER: 85127965 MEDLINE
DOCUMENT NUMBER: 85127965 PubMed ID: 3972180
TITLE: Corneal stromal fibroblasts from adult rabbits retain the capacity to deposit an orthogonal matrix.
AUTHOR: Burke J M; Foster S J
CONTRACT NUMBER: EY04799 (NEI)
EY04800 (NEI)
SOURCE: DEVELOPMENTAL BIOLOGY, (1985 Mar) 108 (1) 250-3.
Journal code: 0372762. ISSN: 0012-1606.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198503
ENTRY DATE: Entered STN: 19900320
Last Updated on STN: 19970203
Entered Medline: 19850329

AB Stromal fibroblasts from the adult rabbit cornea were propagated in vitro, then injected into the vitreous compartment of normal rabbit eyes. In this environment the stromal cells deposited a matrix of imperfect orthogonal collagenous lamellae resembling normal corneal stroma. **Extracellular** matrices were also **secreted** by other ocular and nonocular cell types intravitreally, but no orthogonal regions were observed. The vitreous appears to provide some of the physical and **humoral factors** required to permit adult corneal fibroblasts to **secrete** a stroma-like matrix in the absence of embryonic tissue influences.

L18 ANSWER 42 OF 85 MEDLINE on STN
ACCESSION NUMBER: 82118223 MEDLINE
DOCUMENT NUMBER: 82118223 PubMed ID: 7327435
TITLE: Current view of the mononuclear phagocyte system.
AUTHOR: van Furth R
SOURCE: Haematol Blood Transfus, (1981) 27 3-10.
Journal code: 101169459. ISSN: 0171-7111.
PUB. COUNTRY: GERMANY, WEST: Germany, Federal Republic of
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 198204
ENTRY DATE: Entered STN: 19900317
Last Updated on STN: 20030305
Entered Medline: 19820412

AB The present communication discusses the origin of monocytes and macrophages and gives new mathematical approach to the analysis of results obtained in studies on cell kinetics. It has been shown that the great majority of the macrophages derive from circulating monocytes, whereas the remainder arise by division of immature mononuclear phagocytes in the tissues. However, these dividing cells too originate in the bone marrow and have recently arrived in the tissues. The turnover time of tissue macrophages appears to be of the order of 1 to 5 weeks, which is shorter than had previously been calculated. During an inflammatory response, monocyte production in the bone marrow is regulated by **humoral factors** that stimulate or **inhibit** the mitotic **activity** of promonocytes and their precursors. Whether such

factors are also present during the normal steady state is not yet certain.

L18 ANSWER 43 OF 85 MEDLINE on STN
ACCESSION NUMBER: 77245195 MEDLINE
DOCUMENT NUMBER: 77245195 PubMed ID: 891215
TITLE: The role of the kidney in hypertension.
AUTHOR: Ledingham J M; Floyer M A; Goodwin F J; Lucas J; Mourant A J; Slack B
SOURCE: CONTRIBUTIONS TO NEPHROLOGY, (1977) 8 37-43.
Journal code: 7513582. ISSN: 0302-5144.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197710
ENTRY DATE: Entered STN: 19900314
Last Updated on STN: 19900314
Entered Medline: 19771014

AB The role of the kidney in hypertension is reviewed in terms of sodium and water homeostasis, of the **secretion** of renin inappropriate to the state of sodium and water balance and of other renal **humoral factors** which might be implicated in the hypertensive process. Fundamental to the long-term maintenance of hypertension is an alteration in the relationship between renal perfusion pressure and the **excretion** of sodium and water. This alteration may be brought about as a result of renal structural damage, sympathetically mediated renal vasoconstriction or the action of renal or extrarenal hormones which modulate sodium and water **excretion**. When renin is **secreted** in excess of the prevailing level of sodium and water balance, the generated angiotensin contributes to the hypertension directly through peripheral and renal vasoconstriction. The level of blood pressure in two hypertensive patients with chronic renal failure was found to be highly correlated with the level of plasma renin activity as this was lowered by the administration of a beta-blocking drug. In rats deprived of sodium, renal artery constriction and contralateral nephrectomy was followed by hypertension without any elevation of plasma angiotensin and with a minimal expansion of plasma volume unaccompanied by expansion of **extracellular** fluid volume. The possible role of this small volume change and of other possible factors in producing hypertension is discussed. Studies in the nephrectomised rat confirmed eariler reports that renal medullayr auto-explants inhibited renoprival hypertension, but neither the identity nor mode of action of the medullary hypotensive factor were further clarified.

L18 ANSWER 44 OF 85 MEDLINE on STN
ACCESSION NUMBER: 77079218 MEDLINE
DOCUMENT NUMBER: 77079218 PubMed ID: 63955
TITLE: **Humoral factors** influencing lymphocyte **transformation.**
AUTHOR: Nelson D S; Gatti R A
SOURCE: PROGRESS IN ALLERGY, (1976) 21 261-341. Ref: 529
Journal code: 0376440. ISSN: 0079-6034.
PUB. COUNTRY: Switzerland
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197702

Mitra 09/786,260

ENTRY DATE: Entered STN: 19900313
Last Updated on STN: 19900313
Entered Medline: 19770226

L18 ANSWER 45 OF 85 MEDLINE on STN
ACCESSION NUMBER: 76179357 MEDLINE
DOCUMENT NUMBER: 76179357 PubMed ID: 1224515
TITLE: [Humoral indices of immunologic reactivity in the evaluation of the state of patients with cholecystitis before and after surgery].
Gumoral'nye pokazateli immunologicheskoi reaktivnosti v otsenke sostoianiia bol'nykh kholetsistitom do i posle operatsii.
AUTHOR: Finn G R; Entsova L L
SOURCE: VESTNIK KHIRURGII IMENI I. I. GREKOVA, (1975 Apr) 114 (4) 47-51.
Journal code: 0411377. ISSN: 0042-4625.
PUB. COUNTRY: USSR
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: Russian
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197607
ENTRY DATE: Entered STN: 19900313
Last Updated on STN: 20000303
Entered Medline: 19760706
AB As a result of studies of the complement and serum lysozyme titra, as well as its bactericide index in 250 patients with cholecystitis, it was found that inflammatory lesions of the bile outflow system were accompanied with a considerable reduction of humoral indices of natural immunity, the degree of this decrease being dependent on a gravity of the disease clinical course and a duration of the inflammatory process. Prompt normalization of the immune response factors postoperatively indicated the favourable outcome. Persistant **inhibition** of the **humoral factors activity** in most patients preceded the development of clinical signs of complications.

L18 ANSWER 46 OF 85 MEDLINE on STN
ACCESSION NUMBER: 75153786 MEDLINE
DOCUMENT NUMBER: 75153786 PubMed ID: 4617776
TITLE: [**Humoral factors**, other than aldosterone controlling sodium **excretion**].
Les facteurs humoraux, autres que l'aldosterone controlant l'**excretion** du sodium.
AUTHOR: Nizet A
SOURCE: JOURNAL D UROLOGIE ET DE NEPHROLOGIE, (1974 Dec) 80 (12) 969-73.
Journal code: 7802652. ISSN: 0021-8200.
PUB. COUNTRY: France
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: French
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197508
ENTRY DATE: Entered STN: 19900310
Last Updated on STN: 19900310
Entered Medline: 19750808

L18 ANSWER 47 OF 85 MEDLINE on STN
ACCESSION NUMBER: 71058060 MEDLINE
DOCUMENT NUMBER: 71058060 PubMed ID: 5487242

Search completed by David Schreiber 308-4292

Mitra 09/786,260

TITLE: **Humoral factor** triggering **DNA** synthesis after partial hepatectomy in the rat.
AUTHOR: Sakai A
SOURCE: NATURE, (1970 Dec 19) 228 (277) 1186-7.
Journal code: 0410462. ISSN: 0028-0836.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197102
ENTRY DATE: Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19710204

L18 ANSWER 48 OF 85 MEDLINE on STN
ACCESSION NUMBER: 70257670 MEDLINE
DOCUMENT NUMBER: 70257670 PubMed ID: 5465072
TITLE: Experimental studies on the isolated **humoral factor** which **promotes** the secretory **activity** of the gastric chief cells and the exocrine pancreatic cells. 3. Effects of substances extracted from the gastric mucosa on the gastric chief cells.
AUTHOR: Mabuchi Y
SOURCE: ARCHIVUM HISTOLOGICUM JAPONICUM. NIPPON SOSHIKIGAKU KIROKU, (1970 Mar) 31 (3) 255-68.
Journal code: 0146564. ISSN: 0004-0681.
PUB. COUNTRY: Japan
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 197009
ENTRY DATE: Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19700928

L18 ANSWER 49 OF 85 MEDLINE on STN
ACCESSION NUMBER: 67139419 MEDLINE
DOCUMENT NUMBER: 67139419 PubMed ID: 5297909
TITLE: The effect of exogenous **DNA** and of other **humoral factors** on the spleen-nodule count after whole-body irradiation.
AUTHOR: Juraskova V; Drasil V
SOURCE: INTERNATIONAL JOURNAL OF RADIATION BIOLOGY AND RELATED STUDIES IN PHYSICS, CHEMISTRY AND MEDICINE, (1966) 11 (6) 531-7.
Journal code: 0374725. ISSN: 0020-7616.
PUB. COUNTRY: ENGLAND: United Kingdom
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 196707
ENTRY DATE: Entered STN: 19900101
Last Updated on STN: 19900101
Entered Medline: 19670705

L18 ANSWER 50 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 2000:197296 HCAPLUS
DOCUMENT NUMBER: 132:330223

Search completed by David Schreiber 308-4292

Mitra 09/786,260

TITLE: Regulation of epithelial wound healing by neural factors
AUTHOR(S): Nishida, Teruo; Nakamura, Masatsugu
CORPORATE SOURCE: Department of Ophthalmology, Yamaguchi University School of Medicine, Yamaguchi, 755-8505, Japan
SOURCE: Connective Tissue (1999), 31(4), 243-250
CODEN: COTIE7; ISSN: 0916-572X
PUBLISHER: Japanese Society for Connective Tissue Research
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Intact sensory nerves are essential to maintain the normal integrity of epithelium. When sensory nerves are damaged by pathol. conditions, morphol. changes occur in epithelium, and epithelial wound healing is delayed. Therefore, neural factor(s) released from sensory nerves appear to play an important role in epithelial wound healing. To understand the role of neural factor on epithelial wound healing, the authors investigated the cellular and mol. functions of a sensory neurotransmitter, substance P, in corneal epithelial cells. Using an organ culture system of the cornea, the authors found that substance P and insulin-like growth factor-1 (IGF-1) synergistically stimulate corneal epithelial migration. Epithelial migration was not affected by the addition of either substance P or IGF-1 alone, but it was stimulated significantly by the combination of substance P and IGF-1. This action of substance P occurred specifically among various kinds of neurotransmitters and tachykinins. One of the mechanisms of this synergism is expressed through the activation of integrin, focal adhesion kinase, and paxillin system. In clin. situations, topical application of substance P and IGF-1 was effective in the treatment of severe neurotrophic keratopathy. These findings imply that interacting neural and humoral factors are essential to the maintenance and healing of the epithelium.

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 51 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1998:284591 HCAPLUS
DOCUMENT NUMBER: 128:290311
TITLE: **Extracellular** messages for pancreatic β-cells
AUTHOR(S): Yada, Toshihiko
CORPORATE SOURCE: Department of Physiology, Kagoshima University School of Medicine, Kagoshima, 890, Japan
SOURCE: Advances in Experimental Medicine and Biology (1997), 426(Physiology and Pathophysiology of the Islets of Langerhans), 103-112
CODEN: AEMBAP; ISSN: 0065-2598
PUBLISHER: Plenum Publishing Corp.
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English

AB A review, with 43 refs., on the nutrient messages (sugars and amino acids), neuronal messages (acetylcholine, VIP, gastrin-releasing peptide, cholecystokinin, PACAP, noradrenaline, galanin, CGRP, substance P and opioids), humoral messages (glucagon-like peptide I and gastric inhibitory polypeptide), intrapancreatic messages (glucagon, activin, ACTH-like peptide, ATP, somatostatin, pancreastatin, neuropeptide Y, and islet amyloid polypeptide), and pharmacol. agents (ATP-sensitive K+ channel modulators and Ca2+ channel modulators) that regulate insulin **secretion** from pancreatic β-cells.

REFERENCE COUNT: 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

Search completed by David Schreiber 308-4292

L18 ANSWER 52 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1997:564342 HCAPLUS
DOCUMENT NUMBER: 127:188916
TITLE: Molecular mechanisms of smooth muscle differentiation and dedifferentiation
AUTHOR(S): Hoshino, Yoichi; Kurabayashi, Masahiko; Manabe, Ichiro; Nagai, Ryozo
CORPORATE SOURCE: Igakubu, Gunma Daigaku, Maebashi, 371, Japan
SOURCE: Igaku no Ayumi (1997), 182(5), 325-332
CODEN: IGAYAY; ISSN: 0039-2359
PUBLISHER: Ishiyaku
DOCUMENT TYPE: Journal; General Review
LANGUAGE: Japanese
AB A review, with 45 refs., on humoral factors and signal transduction involved in the proliferation and transformation of the vascular smooth muscle cells. Mol. mechanism of gene expression and transcription factors involved in the transformation of the smooth muscle are also discussed.

L18 ANSWER 53 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1996:574267 HCAPLUS
DOCUMENT NUMBER: 125:244477
TITLE: Humoral factors involved in suppression of liver catalase gene expression of tumor bearer
AUTHOR(S): Naitoh, Yoshizumi; Nakamura, Seiichi; Ito, Keizo; Endo, Hideya; Sato, Kenzo
CORPORATE SOURCE: Fac. Med., Tottori Univ., Yonago, 683, Japan
SOURCE: Yonago Igaku Zasshi (1996), 47(4), 209-217
CODEN: YOIZA3; ISSN: 0044-0558
PUBLISHER: Yonago Igakkai
DOCUMENT TYPE: Journal
LANGUAGE: Japanese
AB The repression of catalase gene was observed in the liver of nude mice carrying various tumors, irresp. of the tumor origin or the species. Culture fluids of these tumor cells also restrained the transcription of the catalase gene in Reuber cell, which was well-differentiated hepatoma cell line, and well-retained the catalase activity. Some of tumor cell lines were determined to secrete tumor necrosis factor α (TNF-α), and others transforming growth factor-β (TGF-β). However, the secretes of these cell lines were suggested to contain unknown factor involved in these suppression from the observation of irregular expression of the catalase gene and the albumin gene.

L18 ANSWER 54 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1992:211510 HCAPLUS
DOCUMENT NUMBER: 116:211510
TITLE: Role of the sodium:potassium pump in potassium handling by the distal nephron: implications for renal potassium adaptation
AUTHOR(S): Katz, Adrian I.
CORPORATE SOURCE: Dep. Med., Univ. Chicago, Chicago, IL, USA
SOURCE: Contributions to Nephrology (1991), 95(Cell. Mol. Biol. Kidney), 155-61
CODEN: CNEPDD; ISSN: 0302-5144
DOCUMENT TYPE: Journal; General Review
LANGUAGE: English
AB A review, with 12 refs. Increasing external K produces a rapid rise in K-transporting capacity (turnover rate) of the Na:K pump in cortical collecting tubule, which is an important component of the early adaptive

response of the kidney to an increased **secretory** K load. This effect is independent of alterations in **humoral factors** (i.e., it is intrinsic to the kidney), and is not mediated by increased intracellular Na. In intact kidney cells **extracellular** K (in addition to intracellular Na) appears to modulate the Na:K pump.

L18 ANSWER 55 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1983:32063 HCAPLUS
DOCUMENT NUMBER: 98:32063
TITLE: Enamel **extracellular** matrix: differentiation specific gene products and the control of their synthesis and accumulation during development
AUTHOR(S): Slavkin, Harold C.; Zeichner-David, Margarita; Siddiqui, M. A. Q.
CORPORATE SOURCE: Lab. Dev. Biol., Univ. South. California, Los Angeles, CA, USA
SOURCE: International Congress Series (1982), 589(Curr. Adv. Skeletogenesis), 24-33
CODEN: EXMDA4; ISSN: 0531-5131
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The major fetal rabbit enamel protein is a 70,000-mol.-weight acidic glycoprotein, termed enamelin (I). I has an amino acid composition dissimilar to that previously published for mammalian enamel matrix amelogenins. Rabbit anti-fetal rabbit enamel protein antisera were used to localize protein synthesis and **secretion** during cap stage molar organogenesis in serumless medium. Whereas the Trowell method for organ culture and serumless medium was permissive for odontoblast and ameloblast differentiation, no mineralization was observed These observations suggest that during rabbit tooth development in vitro, morphogenesis, and tissue-specific differentiation are not dependent upon serum-derived **humoral factors**. Dentin mineralization is not required for subsequent epithelial differentiation into ameloblasts. Recent tech. advances in the isolation of enamel mRNAs enable the construction of fetal rabbit enamel cDNA clones and the future investigation of gene expression during amelogenesis.

L18 ANSWER 56 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1981:172080 HCAPLUS
DOCUMENT NUMBER: 94:172080
TITLE: Renal sodium **excretion** in acutely hypophysectomized rats with expanded **extracellular** fluid volume
AUTHOR(S): Bencsath, Pal; Szenasi, Gabor; Ponec, Jozef; Takacs, Lajos; Lichardus, Branislav
CORPORATE SOURCE: Med. Sch., Semmelweis Univ., Budapest, 1088, Hung.
SOURCE: Developments in Endocrinology (Amsterdam) (1980), 10(Horm. Regul. Sodium Excretion), 299-305
CODEN: DENDD4; ISSN: 0165-1900
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Renal Na+ **excretion** was greatly decreased in acutely hypophysectomized rats with expanded **extracellular** fluid volume compared with controls, and this decrease was accompanied by a decrease in hydrostatic pressure in the peritubular capillaries. The glomerular filtration rate was reduced by .apprx.50% in hypophysectomized rats, and the absolute reabsorption of fluid in the proximal tubule was the same in hypophysectomized and control rats, even though the filtered load was reduced, thus showing an increase in proximal transport capacity. The

water reabsorption in the collecting duct was decreased in the hypophysectomized rats. However, the relative increase in fractional Na+ reabsorption seen in both proximal and distal collections persisted and may even have been enhanced in these animals. Therefore, a factor which operates against tubular Na+ reabsorption in normal rats may be missing in acutely hypophysectomized rats, and this factor may be of humoral origin, as shown by measurement of hydrostatic pressure. The factor may be linked to the function of the pituitary and may participate in the regulation of renal hemodynamics.

L18 ANSWER 57 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:615872 HCAPLUS
DOCUMENT NUMBER: 93:215872
TITLE: Role of thymus humoral factor, a thymic hormone, in the physiology of the thymus
AUTHOR(S): Trainin, Nathan; Umiel, Tehila; Klein, Baruch; Kleir, Israel
CORPORATE SOURCE: Dep. Cell. Biol., Weizmann Inst. Sci., Rehovot, Israel
SOURCE: Miles International Symposium Series (1980), 12(Polypept. Horm.), 467-88
CODEN: MSSEDP; ISSN: 0363-4698
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Thymus humoral factor (THF) [63340-72-7] incubated in vitro with spleen cells from neonatally thymectomized mice increased the ability of the cells to induce lysis of allogeneic and self-modified target cells. Administration of THF (0.1 μg/day for 12 days) to neonatally thymectomized mice produced similar results. THF added to mouse thymus cell suspensions enhanced thymocyte maturation, shifting the population from immature neoplasm growth enhancing to mature neoplasm growth-inhibiting cells. A number of other biol. actions of THF were reviewed and discussed.

L18 ANSWER 58 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1980:185114 HCAPLUS
DOCUMENT NUMBER: 92:185114
TITLE: Role of humoral factors of immunity in lead poisoning
AUTHOR(S): Konksidi, A. K.
CORPORATE SOURCE: Chimkent. Gorodskaya Bol'nitsa, Chimkent, USSR
SOURCE: Zdravookhranenie Kazakhstana (1979), (12), 30-3
CODEN: ZDKAA8; ISSN: 0372-8277
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB A significant increase of DNA antibodies was found in blood plasma of workers with chronic Pb poisoning. The biol. action of humoral factors showed the cytotoxic effect.

L18 ANSWER 59 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1973:82866 HCAPLUS
DOCUMENT NUMBER: 78:82866
TITLE: Antibody-inhibiting activity of bone marrow cells in vitro
AUTHOR(S): Singhal, S. K.; King, S.; Drury, P. J.
CORPORATE SOURCE: Dep. Bacteriol. Immunol., Univ. West. Ontario, London, ON, Can.
SOURCE: International Archives of Allergy and Applied Immunology (1972), 43(6), 934-51
CODEN: IAAAAM; ISSN: 0020-5915
DOCUMENT TYPE: Journal

LANGUAGE: English

AB The immunol. reactivity of mouse bone marrow and thymus cells was studied. Measurements of the levels of immunoglobulin M (IgM) plaque-forming cells were made following the immunization of spleen cells in vitro in the presence of graded nos. of syngenic bone marrow and (or) thymus cells. Data showed the existence of a radiosensitive subpopulation of bone marrow cells which could inhibit the primary and secondary IgM antibody production irresp. of the antigen dose used. This inhibition of antibody production may represent a central control mechanism. This was indicated by a small change in reactivity of antibody-inhibiting cells derived from the bone marrow of tolerant or normal animals. The inability of supernatants from bone marrow cells, premaintained in vitro with or without antigen, to suppress the immune response suggested the absence of a released-**humoral factor** responsible for their antibody-**inhibiting activity**. An enhancement of the immune response with all doses of thymus cells and their inability to overcome the inhibiting activity of bone marrow cells suggests that these immunol. events operate independently.

L18 ANSWER 60 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1973:56003 HCAPLUS
DOCUMENT NUMBER: 78:56003
TITLE: Neurohypophyseal origin of a **humoral factor** restoring volume natriuresis in acutely hypophysectomized rats
AUTHOR(S): Lichardus, B.; Ponec, J.
CORPORATE SOURCE: Inst. Exp. Endocrinol., Slov. Acad. Sci., Bratislava, Czech.
SOURCE: Experientia (1972), 28(12), 1443-4
CODEN: EXPEAM; ISSN: 0014-4754
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A study was designed to investigate whether a humoral substance is present in the posterior pituitary tissue that could reverse the low natriuretic response to the **extracellular** fluid volume expansion with NaCl in acutely hypophysectomized rats. In spite of the plasma-diluting effects of NaCl infusion, peak Na **excretion** during **extracellular** fluid volume expansion in these rats was approx. 0.1 of the corresponding peak for Na **excretion** in non-hypophysectomized rats. Urine output and TRFNa were also decreased considerably, whereas glomerular filtration rate showed only a slight decrease. Homogenate and neurohypophyses injected i.p. in the hypophysectomized rats prior to the first urine-sampling period completely restored their glomerular filtration rate and the ability to **excrete** Na and urine immediately after infusion of the NaCl load. Homogenate from the anterior pituitary was ineffective in this respect. The existence of a **humoral factor** in the posterior pituitary bringing about the action outlined is suggested.

L18 ANSWER 61 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1971:461025 HCAPLUS
DOCUMENT NUMBER: 75:61025
TITLE: Further evidence for a humoral natriuretic factor
AUTHOR(S): Blythe, William B.; D'Avila, Domingos; Gitelman, Hillel J.; Welt, Louis G.; Lee, Ling
CORPORATE SOURCE: Sch. Med., Univ. North Carolina, Chapel Hill, NC, USA
SOURCE: Circulation Research, Supplement (1971), 28(2), II, 21-31
CODEN: CIRSAF; ISSN: 0069-4185

Mitra 09/786,260

DOCUMENT TYPE: Journal
LANGUAGE: English
AB Expts. were performed in dogs, utilizing cross-circulation techniques, to examine the role of **humoral factors** in the production of the diminished net renal tubular reabsorption of Na that is provoked by the expansion of the **extracellular** fluid volume When the **extracellular** fluid volume of one of a pair of dogs (donor) was expanded by i.v. infusion of isotonic saline, the rate of Na **excretion** (UNaV) increased in the nonexpanded animal (recipient) as well as in the donor. Neither dilution per se of the **extracellular** fluid of the donor nor passage of time resulted in an increased UNaV in donors and recipients. Expansion of the blood volume of the donors by the infusion of whole blood resulted in an increased UNaV in the donors but not in the recipients. It is concluded that a **humoral factor** is responsible, at least in part, for the natriuresis that accompanies the i.v. infusion of isotonic saline and that elaboration of the factor is not a consequence solely of either simple dilution of the **extracellular** fluid or expansion of the blood volume

L18 ANSWER 62 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1970:107435 HCAPLUS
DOCUMENT NUMBER: 72:107435
TITLE: Thymic humoral factor prepared from guinea pigs: influence of dietary vitamin C
AUTHOR(S): Dieter, Michael P.
CORPORATE SOURCE: Nat. Inst. of Arthritis and Metab. Dis., Nat. Inst. of Health, Bethesda, MD, USA
SOURCE: Proceedings of the Society for Experimental Biology and Medicine (1969), 132(3), 1147-52
CODEN: PSEBAA; ISSN: 0037-9727
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A description was given for a bioassay of the activity of exts. of the thymic humoral factor prepared from 250-300-g, male, Hartley-strain guinea pigs maintained on high and low vitamin C diets. The end point of the assay involved restoration in rat lymphatic organs of weight and hexose monophosphate-shunt (HMS) activity depressed by whole-body x-irradiation Thymus, but not spleen, extract accelerated regeneration of the spleen and lymphnode weight The thymus extract effect may have been a consequence of antigenic stimulation, in addition to the direct effect of thymic humoral factor, as reported elsewhere. However, since the greatest degree of lymphatic tissue weight regeneration was in the thymus, which was not dependent on antigenic stimulation, and reportedly produced neither antibody nor plasma cells, the thymus extract alone appeared to be the source of the stimulatory effect. Also, the acceleration of thymicwt. regeneration was accompanied by enhanced HMS-enzyme activity (especially, in 6-phosphogluconate dehydrogenase) in each of the lymphatic organs. The lack of a thymic response in nonirradiated animals injected with thy mus extract perhaps indicates that antigenic stimulation, together with thymus extract administration, evoked the peripheral lymphoid-organ responses. Since thymus extract prepared from hypovitaminotic animals exhibited significantly less effects than that prepared from animals maintained on high levels of vitamin C, thymic humoral-factor production or activity appeared to be dependent in part on vitamin C. Evaluation of the concentration and oxidation state of ascorbic acid in the thymus indicated that not only was there less vitamin present in the tissue, but that the amount remaining was largely in the oxidized form. Dehydroascorbate possibly altered the configuration of thymic **humoral factor** during synthesis or **inhibited** the **activity** of certain enzymes

Search completed by David Schreiber 308-4292

in the cellular milieu indirectly affecting the synthesis of thymic humoral factor.

L18 ANSWER 63 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1968:93988 HCAPLUS
DOCUMENT NUMBER: 68:93988
TITLE: Experimental studies on the isolated **humoral factor** which **promotes** the secretory **activity** of the gastric chief cells and the exocrine pancreatic cells. II. Amino acids and related compounds in the extract of the gastric mucosa
AUTHOR(S): Fujie, Kimio; Mabuchi, Yoshiya; Ishimura, Katsumasa; Hiraoka, Junichi
CORPORATE SOURCE: Wakayama Med. Coll., Wakayama, Japan
SOURCE: Wakayama Medical Reports (1968), 12(3), 99-108
CODEN: WKMRAH; ISSN: 0511-084X
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The stomach of the rat was immersed in 33% alc. so that the surface epithelial cells of the gastric mucosa might be isolated and the substance in the cells might be extracted in the alc. The alc. extract was evaporated, dissolved in pH 2.2 Na citrate buffer, and was used for the anal. of amino acids and related compds., using the automatic Amino Acid Analyzer. At least 18 amino acids, 2 related compds., NH3, and 3 undetd. substances were found. The amount of these substance differed with each different substance, but increased as the immersion in alc. was prolonged.

L18 ANSWER 64 OF 85 HCAPLUS COPYRIGHT 2004 ACS on STN
ACCESSION NUMBER: 1966:405256 HCAPLUS
DOCUMENT NUMBER: 65:5256
ORIGINAL REFERENCE NO.: 65:1003d-g
TITLE: Present concepts of the mechanism of aldosterone **secretion** control (literature survey)
AUTHOR(S): Egart, F. M.; Bagramyan, E. R.; Ivanenko, T. I.
SOURCE: Patologicheskaya Fiziologiya i Eksperimental'naya Terapiya (1966), 10(2), 93-9
CODEN: PAFEAY; ISSN: 0031-2991
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB New data on the role of neurohumoral and **humoral factors** in aldosterone (I) **secretion** are summarized. Most authors suppose that ACTH takes part in the control of I **secretion**, but its role is limited to the control of formation and storage of I precursors on the level cholesterol-pregnenolone. The action of Na is mediated by the changes in the volume of intravascular fluid. In this control the reflexogenic zones in blood vessels take part. I **secretion** increases following every loss of **extracellular** fluid. The data on the role of K are contradictory. It was proved that the supposed effect of STH was due to the content of ACTH in insufficiently purified preparations. Ablation of diencephalon, organon subcommissurale, and related structures, or epiphysectomy, decreased I **secretion**; the effect, however, was transient and did not alter the reaction of the zona glomerulosa on the Na content in the diet. Direct relation was found between the degree of granulation in the cells of juxtaglomerular apparatus, the renin content of kidney, and the level of I **secretion**. Thus, the primary effect is the change in volume of intravascular fluid. Most sensitive link in this chain is the intra-cellular Na/K ratio. This change stimulates through the reflexogenic zones the formation of I-stimulating hormone (II) in CNS. II acts by the

humoral way since implanted denervated adrenal preserves its response. I decreases urinary **excretion** of Na, increases intravascular osmotic pressure, and thus stimulates the **secretion** of antidiuretic hormone and resulting water retention.

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ACCESSION NUMBER: 96157749 EMBASE
DOCUMENT NUMBER: 1996157749
TITLE: Effects of perindopril treatment on plasma and urine of kallikrein activity and the stable metabolite of prostaglandin E2 in patients with essential hypertension.
AUTHOR: Zacharieva S.; Torbova S.; Orbetzova M.; Borissova A.-M.; Andonova K.; Sheitanova S.
CORPORATE SOURCE: Clin. Ctr. of Endocrinol./Gerontol., 6 Bd. Damian Gruev,1303 Sofia, Bulgaria
SOURCE: Methods and Findings in Experimental and Clinical Pharmacology, (1996) 18/3 (205-209).
ISSN: 0379-0355 CODEN: MFEPDX
COUNTRY: Spain
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
030 Pharmacology
037 Drug Literature Index
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Eleven male patients with essential hypertension were included in the study. They followed an unrestricted diet and received a single oral daily dose of 4 mg perindopril (ACE inhibitor) for 6 weeks. Plasma renin activity increased significantly and plasma aldosterone decreased significantly after perindopril treatment, suggesting that an effective blockade of angiotensin II formation was accomplished. Both systolic and diastolic blood pressure decreased. Urinary bicycloprostaglandin E2 (an inactive metabolite of prostaglandin E2) increased significantly, while plasma and urinary kallikrein activity decreased significantly after perindopril treatment. The results obtained demonstrated significant changes in prostaglandin E2 and kallikrein **activity** during ACE **inhibition**. The contributive role of these **humoral factors** in the hypotensive effect of perindopril are discussed.

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ACCESSION NUMBER: 91273748 EMBASE
DOCUMENT NUMBER: 1991273748
TITLE: Hyperreactivity of tubuloglomerular feedback in chronically salt-loaded spontaneous hypertensive rats.
AUTHOR: Ushiogi Y.; Haberle D.A.
CORPORATE SOURCE: First Dept. of Internal Med., School of Medicine, Kanazawa University, 13-1 Takaramachi,Kanazawa City, Ishikawa, 920, Japan
SOURCE: Kidney International, (1991) -/SUPPL. 32 (S-142-S-147).
ISSN: 0085-2538 CODEN: KDYIA5
COUNTRY: United States
DOCUMENT TYPE: Journal; Article
FILE SEGMENT: 018 Cardiovascular Diseases and Cardiovascular Surgery
028 Urology and Nephrology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB In order to investigate the mechanisms of the hyperreactivity of the

tubuloglomerular feedback (TGF) mechanism in spontaneous hypertensive rats (SHR) the resetting of TGF by chronic dietary NaCl loading was studied in SHR and normotensive Wistar Kyoto rats (WKY). This treatment is known to reset the TGF by an inhibitory factor in tubular fluid and not by alterations of the intrinsic characteristics of the juxtaglomerular apparatus (JGA). TGF reactivity, and its resetting, were determined by loop of Henle perfusion with artificial late proximal tubular fluid and with harvested endogenous tubular fluid respectively. Dietary effects of the high sodium intake were measured by means of the systolic blood pressure (SBP), plasma volume (PV), and renal sodium **excretion.** The 4-week dietary treatment had no significant influence on SBP in WKY, whereas it accelerated the rise of SBP in SHR significantly. After 1 week of treatment, PV was increased in both WKY and SHR as compared with the control groups kept on the normal diet. Whereas PV in WKY declined to control values over the next 3 weeks, SHR remained expanded. GFR was similar in all groups, whereas urinary sodium **excretion** was significantly increased in salt-loaded SHR and WKY. Dietary salt loading was paralleled by the appearance of a TGF-inhibiting substance in the tubular fluid in SHR and WKY. However, when assayed with artificial late proximal tubular fluid, hyperreactivity was similar in normal and salt-loaded SHR as compared with WKY. Thus, in SHR TGF hyperreactivity is maintained in spite of volume expansion and TGF resetting by a **humoral factor** in tubular fluid. Under these circumstances, TGF hyperreactivity presumably results from intrinsic differences between SHR and WKY rats rather than from an activation of TGF by **extracellular** volume contraction.

L18 ANSWER 67 OF 85 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN

ACCESSION NUMBER: 89098662 EMBASE
DOCUMENT NUMBER: 1989098662
TITLE: Liver-specific growth factors.
AUTHOR: Fleig W.E.
CORPORATE SOURCE: Department of Internal Medicine II (Gastroenterology and Nutrition), Medical Clinic and Polyclinic, University of Ulm, D-7900 Ulm, Germany
SOURCE: Scandinavian Journal of Gastroenterology, Supplement, (1988) 23/151 (31-36).
ISSN: 0085-5928 CODEN: SJGSB8
COUNTRY: Norway
DOCUMENT TYPE: Journal
FILE SEGMENT: 002 Physiology
029 Clinical Biochemistry
048 Gastroenterology
LANGUAGE: English
SUMMARY LANGUAGE: English

AB Experimental evidence of the existence of liver-specific growth factors has been collected for more than two decades. Blood-borne growth-promoting activity of hepatocytes may be separated into plasma and platelet-derived factors. Several groups have observed the stimulation of hepatocyte growth in vitro by some platelet-associated activity, which was recently isolated from rat platelets as a 27-kDa protein called platelet growth factor (PGF). There is evidence of at least two different growth factors for hepatocytes derived from platelet-poor rat plasma, 'hepatopoietin' A and B. The partial purification of several other factors has been reported. One of these factors was prepared from the plasma of patients with fulminant hepatic failure. In addition to these **'humoral' factors**, cytosolic growth-**promoting activity** has been partially purified by several groups. While the humoral factors

described so far are only active on normal hepatocytes, the cytosolic 'hepatic stimulator substance' (HSS) also promotes the proliferation of differentiated hepatoma cells. In addition, it appears to depend on the permissive action of epidermal growth factor (EGF). None of the liver-specific growth factors except PGF has been purified to homogeneity. Thus, their significance for the control of the proliferation of normal and transformed hepatocytes is still an unsettled issue.

L18 ANSWER 68 OF 85 EMBASE
on STN

ACCESSION NUMBER: 80230887 EMBASE
DOCUMENT NUMBER: 1980230887
TITLE: Stimulus-**secretion** coupling of renin. Role of hemodynamic and other factors.
AUTHOR: Fray C.S.
CORPORATE SOURCE: Dept. Physiol., Univ. Massachusetts Med. Sch., Worcester, Mass., United States
SOURCE: Circulation Research, (1980) 47/4 (485-492).
CODEN: CIRUAL
COUNTRY: United States
DOCUMENT TYPE: Journal
FILE SEGMENT: 037 Drug Literature Index
018 Cardiovascular Diseases and Cardiovascular Surgery
002 Physiology
028 Urology and Nephrology
003 Endocrinology
LANGUAGE: English

AB Renal arterial hypotension, renal vasoconstriction, and intrarenal tissue pressure elevation stimulate renin **secretion** by hyperpolarizing the juxtaglomerular cell membrane and decreasing the permeability to calcium. Conversely, hypertension and vasodilation inhibit **secretion** by depolarizing the cell and increasing the calcium permeability. Movement of calcium then, is, critically dependent on the calcium concentration of the **extracellular** fluid. During inhibition of renin **secretion**, for example, if the calcium concentration outside the cell is greater than inside and the calcium electrochemical gradient favors movement into the cell, then when the cell is stretched, as by raising perfusion pressure, calcium will enter and increase cytoplasmic calcium. **Humoral factors** such as β-adrenergic agonists also may hyperpolarize the juxtaglomerular cell membrane and impede the influx of **extracellular** calcium. However, such agonists also may stimulate net calcium efflux through a cascade of events beginning with the sodium-potassium pump linked to a sodium-calcium exchange mechanism. The net effect of these factors is a reduction of cytoplasmic calcium. Thus, humoral agents such as parathyroid hormone, glucagon, methylxanthines, adenosine compounds, and calcium ionophores that have profound effects on membrane potential and calcium movements in cells might be expected to regulate renin **secretion** in an ordered and predictable fashion.

L18 ANSWER 69 OF 85 EMBASE
on STN

ACCESSION NUMBER: 76061276 EMBASE
DOCUMENT NUMBER: 1976061276
TITLE: A comparison of sodium **excretion** in response to infusion of isotonic saline into the vena porta and vena cava of conscious rats.
AUTHOR: Perlmutt J.H.; Aziz O.; Haberich F.J.
CORPORATE SOURCE: Inst. Angew. Physiol., Philipps Univ., Marburg, Germany

Mitra 09/786,260

SOURCE: PFLUG.ARCH.EUR.J.PHYSIOL., (1975) 357/1-2 (1-14).
CODEN: PAGPA4
DOCUMENT TYPE: Journal
FILE SEGMENT: 002 Physiology
LANGUAGE: English

AB Indwelling non occlusive catheters were placed in the vena porta and inferior vena cava of female rats several days before experimentation. Isotonic saline or isosmotic glucose (2% of body weight) was infused into one vein followed one to several days later with an identical infusion into the other vein of each conscious animal. Significantly higher urine flow and sodium **excretion** resulted from infusion of isotonic saline (0.5 ml/min) into the vena porta than into the vena cava. Modest prehydration or section of the hepatic branch of the right vagus did not affect the differential sodium response. Changes in endogenous creatinine clearance and potassium **excretion** were not significantly different for the 2 routes. Mean values for net peak sodium **excretion** and contemporaneous urine flow, urinary sodium concentration, and fractional sodium **excretion** were significantly higher for the portal than for the caval infusion while differences in glomerular filtration rate and filtered sodium load were insignificant. No significant difference in sodium **excretion** resulted from infusion of isosmotic glucose by the 2 routes. Compared to the response promoted by the isotonic saline load infused at 0.5 ml/min, the differential response in sodium **excretion** was prolonged when the same load was infused at 0.375 ml/min. Sodium **excretion** was not significantly different for the 2 routes when the same isotonic saline load was infused at 0.75 ml/min. These experiments provide evidence for participation of the liver in the control of sodium **excretion** and suggest release of a hepatic **humoral factor** which may be controlled by the duration of exposure of the hepatic circulation to an adequate load of isotonic saline.

L18 ANSWER 70 OF 85 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN
ACCESSION NUMBER: 74161846 EMBASE
DOCUMENT NUMBER: 1974161846
TITLE: Natriuretic and sodium transport inhibitory activity in plasma of volume expanded dogs.
AUTHOR: Buckalew Jr V.M.; Nelson D.B.
CORPORATE SOURCE: Dept. Med., Emory Univ. Sch. Med., Atlanta, Ga., United States
SOURCE: Kidney International, (1974) 5/1 (12-22).
CODEN: KDYIA5
DOCUMENT TYPE: Journal
FILE SEGMENT: 028 Urology and Nephrology
002 Physiology
030 Pharmacology
023 Nuclear Medicine
LANGUAGE: English

AB Ultrafiltrates of jugular vein plasma from dogs acutely expanded with saline caused a 25 ± 3.1% (mean ± SEM) inhibition of toad bladder short circuit current (SCC). Similar ultrafiltrates obtained from dogs acutely volume depleted following furosemide administration caused a change of 3 ± 1.7% in SCC ($P < 0.001$). Plasma ultrafiltrates of volume expanded dogs also inhibited SCC of the frog skin. SCC inhibition was not due to blood dilution with saline. Antinatriferic activity passed readily through a permselective membrane with a molecular weight cutoff of 500. On Sephadex G-10 column chromatography, antinatriferic activity was confined to a single fraction with a molecular weight less than 700. The same

fraction which inhibited SCC caused an increase in sodium **excretion** and urine volume in partially nephrectomized rats undergoing a maximum water diuresis. These results indicate that plasma of volume expanded dogs contains a **humoral factor** with a molecular weight less than 500 to 700 which inhibits sodium transport in vitro and causes natriuresis in vivo. This factor could modulate renal sodium **excretion** under some physiologic conditions.

L18 ANSWER 71 OF 85 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 96:143733 SCISEARCH
THE GENUINE ARTICLE: TV255
TITLE: ANALYSIS OF THE IN-VITRO **SECRETORY** ACTIVITY OF HUMAN PITUITARY-ADENOMAS - MODIFICATION OF CORTICOTROPIN RELEASE FROM ADENOMA TISSUE EXPLANT CULTURES BY ADDITION OF A HUMAN PLASMA ULTRAFILTRATE BIOACTIVE FRACTION
AUTHOR: ZARKOVIC N (Reprint); HAYN M; PLAVSIC V; ZARKOVIC K; PALADINO J; HIRSL N; GOLUBIC J; MIKULANDRA S; ROGIC D; SALZER B; POKRIC B; SCHAUR R J; TATZBER F A; FAULHAMMER H; BENKO B; DIETRICH W; JURIN M; KORSIC M
CORPORATE SOURCE: RUDJER BOSKOVIC INST, BIJENICKA 54, ZAGREB 10000, CROATIA (Reprint); GRAZ UNIV, INST BIOCHEM, A-8010 GRAZ, AUSTRIA; CLIN HOSP CTR REBRO, LAB ENDOCRINOL, ZAGREB, CROATIA; CLIN HOSP CTR REBRO, INST NEUROPATHOL, ZAGREB, CROATIA; CLIN HOSP CTR REBRO, CLIN NEUROSURG, ZAGREB, CROATIA; CLIN HOSP CTR REBRO, CLIN INTERNAL MED, ZAGREB, CROATIA; UNIV ZAGREB, CLIN REBRO, CLIN INST LAB DIAG, ZAGREB 41000, CROATIA; INST BIOCHEM, BAYREUTH, GERMANY; INST IMMUNOL, ZAGREB, CROATIA; UNIV OLDENBURG, W-2900 OLDENBURG, GERMANY
COUNTRY OF AUTHOR: CROATIA; AUSTRIA; GERMANY
SOURCE: EUROPEAN JOURNAL OF CLINICAL CHEMISTRY AND CLINICAL BIOCHEMISTRY, (JAN 1996) Vol. 34, No. 1, pp. 23-30. ISSN: 0939-4974.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 35

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB The lack of control of tumour behaviour is manifested in different ways, depending primarily on the type of tumour. This results in numerous problems of tumour diagnosis and therapy. In the case of ''benign'' tumours, like pituitary adenomas, in vitro studies are often used for evaluation of the tumour. The use of tissue explant cultures of human pituitary adenomas and the comparison of the feature of cultured tumours with their behaviour in vivo showed that corticotropin is released not only from the tumours associated with Cushing's disease, but also from clinically non-functioning tumours. Hence, it was supposed that the release of corticotropin in vivo from non-**secreting** tumours is probably under the influence of certain neuroendocrine and/or systemic **humoral factors**. To test this possibility, samples of 22 tumours were cultured in plain culture medium or in the presence of the ''human plasma ultrafiltrate bioactive fraction'' (tentatively termed as TBP) prepared by anion-exchange chromatography. In the presence of TBP the release of corticotropin was strongly inhibited in adenomas showing relatively high spontaneous **secreting** activity in vitro (> 200 ng/l in 24 hours), while immunohistochemistry of these tumours indicated accumulation of corticotropin inside the cells. In contrast, TBP stimulated corticotropin release from tumours that showed relatively low basic corticotropin release (< 200 ng/l in 24 hours), with no obvious change in cellular corticotropin immunoreactivity. Such a dual activity of

TBP was not observed for 8 samples of adenomas cultured in the presence of surrounding pituitary tissue, probably because TBP did not affect corticotropin **secretion** by the normal pituitary cells (as indicated by immunohistochemistry). From these results, it appears that TBP could be one of the **humoral factors** involved in the regulation of corticotropin release from pituitary adenoma tissue. Its possible involvement in the regulation of corticotropin release from normal pituitary tissue, however, is uncertain.

L18 ANSWER 72 OF 85 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 92:5146 SCISEARCH
THE GENUINE ARTICLE: GV393
TITLE: ANALYSIS OF THYMIC STROMAL CELL SUBPOPULATIONS GROWN-INVITRO ON **EXTRACELLULAR**-MATRIX IN DEFINED MEDIUM .3. GROWTH-CONDITIONS OF HUMAN THYMIC EPITHELIAL-CELLS AND IMMUNOMODULATORY ACTIVITIES IN THEIR CULTURE SUPERNATANT
AUTHOR: SCHREIBER L; ESHEL I; MEILIN A; SHARABI Y; SHOHAM J (Reprint)
CORPORATE SOURCE: BAR ILAN UNIV, DEPT LIFE SCI, IL-52900 RAMAT GAN, ISRAEL
COUNTRY OF AUTHOR: ISRAEL
SOURCE: IMMUNOLOGY, (DEC 1991) Vol. 74, No. 4, pp. 621-629. ISSN: 0019-2805.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: 36

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB We report here on a new approach to the cultivation of human thymic epithelial (HTE) cells, which apparently allows more faithful preservation of cell function. This approach, previously developed by us for mouse thymic epithelial (MTE) cells, is based on the use of culture plates coated with **extracellular** matrix (ECM), and on the use of serum-free, growth factor-supplemented medium. The nutritional requirements of HTE and MTE are somewhat different. Although both are critically dependent on ECM and insulin, they differ in their dependency on other growth factors: selenium and transferrin are much more important for HTE cells, whereas epidermal growth factor and hydrocortisone play a more essential role in MTE cultures. The epithelial nature of the cultured cells is indicated by positive staining with anti-keratin antibodies and by the presence of desmosomes and tonofilaments. The ultrastructural appearance of the cells further suggests high metabolic and **secretory** activities, not usually found in corresponding cell lines. The culture supernatant (CS) of HTE cells exhibited a strong enhancing effect on thymocyte response to Con A stimulation, as measured by cell proliferation and lymphokine production. The effect was observed on both human and mouse thymocytes, but was much stronger in the homologous combination. Thymic factors tested in parallel did not have such a differential effect. The dose-effect relationships were in the form of a bell-shaped curve. with fivefold enhancement of response at the peak and a measurable effect even with 1:1000 dilution, when human thymocytes were used. The responding thymocytes were those which do not bind peanut agglutinin and are resistant to hydrocortisone. The culture system described here may have advantages for the in vitro study of thymic stromal cell function.

L18 ANSWER 73 OF 85 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 91:471595 SCISEARCH
THE GENUINE ARTICLE: GB714

Mitra 09/786,260

TITLE: ALTERED RENAL CALCIUM HANDLING IN HYPERCALCEMIA OF MALIGNANCY
AUTHOR: TUTTLE K R (Reprint); KUNAU R T; LOVERIDGE N; MUNDY G R
CORPORATE SOURCE: UNIV TEXAS, HLTH SCI CTR, DEPT MED, DIV NEPHROL, SAN ANTONIO, TX, 78284; UNIV TEXAS, HLTH SCI CTR, DEPT MED, DIV ENDOCRINOL, SAN ANTONIO, TX, 78284; ROWETT RES INST, BONE GROWTH & METAB UNIT, BUCKSBURN AB2 9SB, ABERDEEN, SCOTLAND
COUNTRY OF AUTHOR: USA; SCOTLAND
SOURCE: JOURNAL OF THE AMERICAN SOCIETY OF NEPHROLOGY, (1991) Vol. 2, No. 2, pp. 191-199.
DOCUMENT TYPE: Article; Journal
FILE SEGMENT: CLIN
LANGUAGE: ENGLISH
REFERENCE COUNT: 35

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB It has been controversial whether increased renal tubular calcium reabsorption contributes to hypercalcemia in patients with malignancies. Moreover, whether this abnormality is associated with volume depletion, a parathyroid hormone-like effect, or other mechanisms has not been clarified. Eight consecutive patients with hypercalcemia due to a variety of tumor types were studied in detail. The glomerular filtration rate (iothalamate clearance) was reduced in all patients (0.98 +/- 0.10 (mean +/- SE) mL/s. 1.73 m2; P < 0.001) compared with normal controls (N = 9) (1.93 +/- 0.08 mL/s.1.73 m2), but it was similar to that in controls matched for renal insufficiency (N = 6) (1.15 +/- 0.05 mL/s.1.73 m2). During hypercalcemia produced by calcium infusion, urinary calcium **excretion** (millimoles of calcium per liter of glomerular filtrate) was increased in controls with renal insufficiency compared to those with normal renal function (P = 0.028). In all patients with hypercalcemia of malignancy, urinary calcium **excretion** was decreased compared with controls with renal insufficiency, but it was low in only five of eight patients compared with normal controls. **Extracellular** fluid volume (iothalamate volume of distribution) was not decreased in any patient, and urinary cAMP and/or plasma parathyroid hormone-like bioactivity were increased in six of eight patients. After treatment with an inhibitor of bone resorption, aminopropylidene 1, 1 diphosphonate, abnormal renal calcium handling was not detected if the serum calcium normalized. It was concluded that increased renal tubular calcium reabsorption was consistently present in patients with hypercalcemia of malignancy compared with controls matched for renal insufficiency, but the proportion with the abnormality was underestimated if normal controls were used. Because volume depletion was not observed and parathyroid hormone-like activity was not always demonstrated, hypercalcemia per se or other **humoral factors** may alter renal calcium handling.

L18 ANSWER 74 OF 85 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 83:217332 SCISEARCH
THE GENUINE ARTICLE: QN290
TITLE: EVIDENCE FOR **HUMORAL-FACTORS** STIMULATING **DNA**-SYNTHESIS AFTER ABDOMINAL-SURGERY
AUTHOR: BILLER J A (Reprint); MONTGOMERY R K; GRAND R J; KLAGSBRUN M
CORPORATE SOURCE: CHILDRENS HOSP MED CTR, DEPT MED, DIV GASTROENTEROL, BOSTON, MA, 02115; CHILDRENS HOSP MED CTR, DEPT SURG, BOSTON, MA, 02115
COUNTRY OF AUTHOR: USA

Search completed by David Schreiber 308-4292

Mitra 09/786,260

SOURCE: GASTROENTEROLOGY, (1983) Vol. 84, No. 5, pp. 1106.
DOCUMENT TYPE: Conference; Journal
FILE SEGMENT: LIFE; CLIN
LANGUAGE: ENGLISH
REFERENCE COUNT: No References

L18° ANSWER 75 OF 85 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 80:6391 SCISEARCH
THE GENUINE ARTICLE: HZ527
TITLE: INHIBITION OF **DNA**-SYNTHESIS BY **HUMORAL** **-FACTORS** IN CULTURES OF A MURINE PLASMACYTOMA
AUTHOR: CHALABI I K (Reprint); RICHES A C
CORPORATE SOURCE: UNIV ST ANDREWS, DEPT ANAT & EXPTL PATHOL, ST ANDREWS KY16 9ST, FIFE, SCOTLAND
COUNTRY OF AUTHOR: SCOTLAND
SOURCE: JOURNAL OF ANATOMY, (1979) Vol. 129, No. DEC, pp. 873.
DOCUMENT TYPE: Conference; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: No References

L18 ANSWER 76 OF 85 SCISEARCH COPYRIGHT 2004 THOMSON ISI on STN
ACCESSION NUMBER: 77:453095 SCISEARCH
THE GENUINE ARTICLE: EA010
TITLE: **HUMORAL FACTOR** INHIBITING T-CELL **TRANSFORMATION** IN ANGIOIMMUNOBLASTIC LYMPHADENOPATHY
AUTHOR: SKIBIN A (Reprint); SUKENIK S; KEYNAN A; QUASTEL M R
CORPORATE SOURCE: SOROKA UNIV HOSP, BEERSHEBA, ISRAEL; BEN GURION UNIV NEGEV, BEERSHEBA, ISRAEL
COUNTRY OF AUTHOR: ISRAEL
SOURCE: ISRAEL JOURNAL OF MEDICAL SCIENCES, (1977) Vol. 13, No. 11, pp. 1146.
DOCUMENT TYPE: Conference; Journal
FILE SEGMENT: LIFE
LANGUAGE: ENGLISH
REFERENCE COUNT: No References

L18 ANSWER 77 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1998-167543 [15] WPIDS
DOC. NO. NON-CPI: N1998-133048
TITLE: Use of massage to stimulate yield during machine milking of cows - applying massage in form of external mechanical vibrations in lumbar-sacral region with electromechanical vibration apparatus.
DERWENT CLASS: P13
INVENTOR(S): DANILSON, V A; KORNEV, V K; NIKOVOROV, P N
PATENT ASSIGNEE(S): (NIKO-I) NIKOVOROV P N
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
RU 2086112	C1	19970810	(199815)*		4

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE

Search completed by David Schreiber 308-4292

Mitra 09/786,260

RU 2086112 C1 RU 1993-35720 19930707

PRIORITY APPLN. INFO: RU 1993-35720 19930707
AN 1998-167543 [15] WPIDS
AB RU 2086112 C UPAB: 19980410
A procedure for stimulating milk yield during machine milking of cows consists of applying massage in the form of discontinuous external mechanical vibrations in the lumbar-sacral region at a frequency of 95 to 105 Hz an amplitude of 0.3-0.8 mm. The vibrations last for 0.7-1.0 sec with intervals of 0.3-0.5 sec between, and the massage is begun 0.5-1.0 min before putting on the teat cups and continued for 3 min.

The vibration stimulates the contracting capacity of the myoepithelium of the cow's udder, the hormonal hypophysis function, cell and **humoral factors** of natural resistance.

ADVANTAGE - Procedure uses simple apparatus which is convenient to use, with safe 12V power supply.
Dwg.0/0

L18 ANSWER 78 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1996-049626 [05] WPIDS
DOC. NO. CPI: C1996-016232
TITLE: Bio adhesive starch production from native starch - by high energy grinding or milling, used as drug carrier, especially for improving drug absorption on nasal admin..
DERWENT CLASS: B07 D17
INVENTOR(S): DE, PONTI R; MARTINI, A; MUGGETTI, L
PATENT ASSIGNEE(S): (PHAA) PHARMACIA SPA; (PHAA) PHARMACIA & UPJOHN SPA
COUNTRY COUNT: 19
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9534582	A1	19951221	(199605)*	EN	36
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
W: AU JP US					
AU 9527865	A	19960105	(199614)		
EP 714411	A1	19960605	(199627)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LU MC NL PT SE					
JP 09503023	W	19970325	(199722)		26
AU 692565	B	19980611	(199834)		
US 5804209	A	19980908	(199843)		
EP 714411	B1	19990721	(199933)	EN	
R: DE GB IT					
DE 69510894	E	19990826	(199940)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9534582	A1	WO 1995-EP2044	19950530
AU 9527865	A	AU 1995-27865	19950530
EP 714411	A1	EP 1995-923209	19950530
		WO 1995-EP2044	19950530
JP 09503023	W	WO 1995-EP2044	19950530
		JP 1996-501546	19950530
AU 692565	B	AU 1995-27865	19950530
US 5804209	A	WO 1995-EP2044	19950530
		US 1996-592301	19960209

Search completed by David Schreiber 308-4292

Mitra 09/786,260

EP 714411	B1	EP 1995-923209	19950530
		WO 1995-EP2044	19950530
DE 69510894	E	DE 1995-610894	19950530
		EP 1995-923209	19950530
		WO 1995-EP2044	19950530

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9527865	A	Based on	WO 9534582
EP 714411	A1	Based on	WO 9534582
JP 09503023	W	Based on	WO 9534582
AU 692565	B	Previous Publ.	AU 9527865
		Based on	WO 9534582
US 5804209	A	Based on	WO 9534582
EP 714411	B1	Based on	WO 9534582
DE 69510894	E	Based on	EP 714411
		Based on	WO 9534582

PRIORITY APPLN. INFO: GB 1995-1936 19950201; GB 1994-12064 19940616

AN 1996-049626 [05] WPIDS

AB WO 9534582 A UPAB: 19971113

Production of a bioadhesive starch (I) comprises high energy grinding or high energy milling of a non-bioadhesive starch (II). Also claimed are: (I) obtainable by the process; a pharmaceutical compsn. containing the obtd. (I) and an active agent (A); and a bioadhesive drug delivery system containing the obtd. (I) are a carrier.

USE - (I) is specifically for use as a carrier for admin. of (A), ensuring enhanced or prolonged, sustained and controlled release of (A). The use of (I) is claimed to formulate a gel or a drug releasing platform with bioadhesive properties; and for the mfr. of a medicament form admin. of (A) to a tissue surface. (I) is especially used as a carrier for nasal admin.

of (A) (claimed), () is especially temazepam, glipizide or thymic **humoral factor** (all claimed); numerous other (A) are listed in the disclosure.

ADVANTAGE - (I) obtd. by the process have better bioadhesive properties than analogous products obtd. by spray-drying. The process is cheap and simple, and does not involve the expensive appts. and complicated procedures of prior art methods (i.e. drum drying, spray drying or extrusion). When used as a carrier for nasal drug delivery, (I) increase the residence time in the nasal cavity and improves absorption of (A).

Dwg.0/0

L18 ANSWER 79 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1995-373636 [48] WPIDS
DOC. NO. CPI: C1995-161889
TITLE: Treatment of advanced stages of HIV disease - using antibodies against cytotoxic T-cells and thymic **humoral factor.**
DERWENT CLASS: B04 D16
INVENTOR(S): ALLEN, A D
PATENT ASSIGNEE(S): (ALLE-I) ALLEN A D
COUNTRY COUNT: 63
PATENT INFORMATION:

Search completed by David Schreiber 308-4292

Mitra 09/786,260

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9528176	A1	19951026	(199548)*	EN	41
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG					
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU IS JP KE KG KP KR KZ LK LR LT LU LV MD MG MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM TT UA UG UZ VN					
AU 9522483	A	19951110	(199607)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9528176	A1	WO 1995-US4721	19950417
AU 9522483	A	AU 1995-22483	19950417

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9522483	A	Based on	WO 9528176

PRIORITY APPLN. INFO: US 1994-227963 19940415
AN 1995-373636 [48] WPIDS
AB WO 9528176 A UPAB: 19951204
Method for treating a patient having suppressed immune function resulting from HIV infection in order to elevate the number of CD4+ cells in the patient comprises:(a)
(i) infusing a dose of monoclonal antibodies, the dose being between 0.01-1.0 mg of antibodies/kg of the patients wt, and
(ii) providing thymic hormones to the patient which are (1) of a type capable of normalising CD4/CD8 ratios, and/or (2) have pharmaceutical and biological properties similar to thymic **humoral factor**
, and
(iii) repeating the infusion and provision as necessary, and/or(b)
(i) infusing a dose of antibody produced by the hybridoma cell line ATCC 9579, the dose being between 0.1-1.0 mg of the antibody per kg of the patients body weight;
(ii) providing thymic **humoral factor** to the patient,
and
(iii) repeating the infusion and provision as necessary.
USE/ADVANTAGE - The method is used in the treatment of more advanced stages of HIV disease and uses monoclonal antibodies directed against anti-self cytotoxic T-lymphocytes or their related lytics in order to inhibit or treat HIV and HIV related diseases. The thymic hormones comprise thymic **humoral factor** and 2.17 mg of this are injected twice per day for a period of 2 weeks and then at a rate of 2.17 mg of the thymic **humoral factor** 3 times a week for 12 weeks. The thymic hormones may be injected intramuscularly or orally ingested (claimed).
Dwg.0/9

L18 ANSWER 80 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1995-060814 [08] WPIDS
DOC. NO. CPI: C1995-027014
TITLE: New thymic **humoral factor** gamma 2 analogues - used as immunomodulatory agents for treating e.g. immune defects, viral infections or auto immune disease.

Search completed by David Schreiber 308-4292

Mitra 09/786,260

DERWENT CLASS: B04
INVENTOR(S): BURSTEIN, Y; RYCUS, A; TRAININ, N
PATENT ASSIGNEE(S): (YEDA) YEDA RES & DEV CO LTD; (RYCU-I) RYCUS A
COUNTRY COUNT: 46
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9501182	A1	19950112	(199508)*	EN	30
RW: AT BE CH DE DK ES FR GB GR IE IT LU MC NL OA PT SE					
W: AT AU BB BG BR BY CA CH CZ DE DK ES FI GB HU JP KP KR KZ LK LU MG MN MW NL NO NZ PL PT RO RU SD SE SK UA US VN					
AU 9473189	A	19950124	(199520)		
ZA 9404769	A	19950426	(199523)		35
EP 708654	A1	19960501	(199622)	EN	
R: DE ES FR GB IT SE					
JP 09500377	W	19970114	(199712)		34
US 5783557	A	19980721	(199836)		
IL 106214	A	19981206	(199913)		
US 5968898	A	19991019	(199950)		

APPLICATION DETAILS:

PATENT NO	KIND		APPLICATION	DATE
WO 9501182	A1		WO 1994-US7304	19940628
AU 9473189	A		AU 1994-73189	19940628
ZA 9404769	A		ZA 1994-4769	19940701
EP 708654	A1		EP 1994-923269	19940628
			WO 1994-US7304	19940628
JP 09500377	W		WO 1994-US7304	19940628
			JP 1995-503605	19940628
US 5783557	A		WO 1994-US7304	19940628
			US 1996-571985	19960329
IL 106214	A		IL 1993-106214	19930701
US 5968898	A	Div ex	WO 1994-US7304	19940628
		Div ex	US 1996-571985	19960329
			US 1998-116766	19980716

FILING DETAILS:

PATENT NO	KIND		PATENT NO
AU 9473189	A	Based on	WO 9501182
EP 708654	A1	Based on	WO 9501182
JP 09500377	W	Based on	WO 9501182
US 5783557	A	Based on	WO 9501182
US 5968898	A	Div ex	US 5783557

PRIORITY APPLN. INFO: IL 1993-106214 19930701
AN 1995-060814 [08] WPIDS
AB WO 9501182 A UPAB: 19950301
A peptide is claimed which is a thymic humoral disease factor (THF)-gamma2 analogue of at least 4 amino acid (AA) residues or a functional derivative or salt, capable of enhancing concanavalin A (Con A)-induced interleukin-2 (IL-2) production in mouse spleen cells and/or the number of granulocyte-monocyte colony forming cells (GM-CFC) of mouse bone marrow. The peptide comprises one or more sequences corresponding to the sequence of THF-gamma2 of formula Leu-Glu-Asp-Gly-Pro-Lys-Phe-Leu (I) but differing

by (i) deletion of one or more AA residues, (ii) addition of one or more AA residues at the N-and/or C-terminus, (iii) substn. of one or more AA residues by a protein natural or non-natural AA residue, (iv) cyclisation through a free carboxyl gp. and a free amino gp. or through disulphide bonds of cysteine residues or (v) linkage of two or more sequences of formula (I) or modified sequences of (I) corresponding to (i)-(iv), either directly or through a peptide or non-peptide chain.

USE - The peptides are used as immunomodulatory agents (claimed). They can be used for treating e.g. congenital immune defects involving primary T cell deficiencies such as thymic dysplasia and Down's syndrome, primary and secondary viral infections (e.g. herpes virus, adenovirus and HIV), as well as subacute infections such as subacute sclerosing pan-encephalitis, immune suppression and leukopenia following cancer treatment by chemotherapy and/or radiotherapy, autoimmune inflammatory disorders, e.g. rheumatoid arthritis, systemic lupus erythematosus and psoriasis, in bone marrow transplantation to prevent viral infections and in atopic conditions such as asthma and atopic dermatitis.

ADVANTAGE - The peptides can have immunomodulatory properties similar to THF-gamma2.

Dwg.0/0

L18 ANSWER 81 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1994-054727 [07] WPIDS
DOC. NO. CPI: C1994-024897
TITLE: Analgesic with antibody production stimulation properties - comprises bone marrow **humoral factor** containing low mol. peptide substits. to reduce rehabilitation time.
DERWENT CLASS: B04
INVENTOR(S): DURINYAN, R A; PETROV, R V; VASILENKO, A M
PATENT ASSIGNEE(S): (FEDO-I) FEDOTOV P A; (TRAD-R) TRADITIONAL MEDICINAL METHODS RES INST
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
RU 2000789	C1	19931015	(199407)*		3

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
RU 2000789	C1	SU 1981-3367502	19811013

PRIORITY APPLN. INFO: SU 1981-3367502 19811013
AN 1994-054727 [07] WPIDS
AB RU 2000789 C UPAB: 19940329
The analgesic, namely 'Mielopid' (sic), comprises bone marrow **humoral factor** containing low-mol. peptide-type substits. of 500-3000 mol.weight, previously known as a stimulator of antibody production. This is prepared by gel-filtration from the supernatant obtd. by incubating bone marrow cell cultures for 18-20 h in nutrient medium.

USE/ADVANTAGE - In clinical medicine and research, an effective analgesic that cuts recovery times by stimulating antibody production. Besides its pain-relieving effects the anodyne modulates the immune response and increases the general reactivity of the organism towards pathogenic factors.

Mitra 09/786,260

In trials involving 28 volunteers injected with the preparation in dosage of 1 mg/ml tactile sensitivity threshold increased on average by 47.5%, paint threshold by 37% and pain tolerance by 31.5%. Bul.37-38/15.10.93 Dwg.0/0

L18 ANSWER 82 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1986-311579 [47] WPIDS
DOC. NO. CPI: C1986-134971
TITLE: New thymic **humoral factor** peptide(s) - which may be used to restore immunologic T-cell function.
DERWENT CLASS: B04
INVENTOR(S): BURSTEIN, Y; TRAININ, N
PATENT ASSIGNEE(S): (YEDA) YEDA RES & DEV CO LTD
COUNTRY COUNT: 17
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
US 4621135	A	19861104	(198647)*		8
JP 01156997	A	19890620	(198930)		
JP 02010160	B	19900306	(199013)		
CA 1270597	A	19900619	(199028)		
IL 78951	A	19901105	(199103)		
KR 9003095	B	19900507	(199120)		
JP 04022919	B	19920420	(199220)		10
CZ 9104194	A3	19930317	(199329)		
EP 204328	B1	19940824	(199433)	EN	12
R: AT BE CH DE FR GB IT LI NL SE					
DE 3650035	G	19940929	(199438)		
SK 9104194	A3	19950711	(199537)		

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
US 4621135	A	US 1985-741753	19850606
JP 01156997	A	JP 1988-257418	
JP 04022919	B	JP 1988-257416	
CZ 9104194	A3	CS 1991-4194	19911231
EP 204328	B1	EP 1986-107601	19860604
DE 3650035	G	DE 1986-3650035	19860604
		EP 1986-107601	19860604
SK 9104194	A3	CS 1991-4194	19911231

FILING DETAILS:

PATENT NO	KIND		PATENT NO
DE 3650035	G	Based on	EP 204328

PRIORITY APPLN. INFO: US 1980-153644 19800527; US 1981-227299 19810122; US 1981-300330 19810908; US 1982-394571 19820702; US 1983-475175 19830314; US 1983-535539 19830923; US 1983-559393 19831208; US 1985-741753 19850606

AN 1986-311579 [47] WPIDS
AB US 4621135 A UPAB: 19930922
Peptides having thymic humoral activity and of formulae (I)-(III) are new.

Search completed by David Schreiber 308-4292

Leu-Glu-Asp-Gly-Pro-Lys-Phe-Leu (I)
His-Pro-Leu-Pro-Asp-Leu-Tyr (II)
Phe-Val-Leu (III)
These peptides are designated THF gamma 2, THF gamma 4 and THF gamma 5 resp. (THF=thymic **humoral factor**). The peptides may be isolated from natural thymes glands or can be produced synthetically (e.g. using merrifield techniques). The isolation technique involves. (i) preparing THF I from frozen calf thymes by the method of US4250084; (ii) subjecting THF I to gel filtration to obtain THF II; (iii) treating THF II by reversed phase HPLC to recover THF III; (iv) further subjecting THF III to reversed phase HPLC to give THF 7; (v) treating THF 7 by reversed phase HPLC to provide THF 8; and (vi) separating THF 8 into fractions gamma 2; gamma 4 and gamma 5 by reversed phase HPLC.
USE - The peptides may be used to restore immunologic T-cell function in patients suffering from a defective thymic epithelial anlage; causing dysmaturity of the T-cell lineage.
0/0

ABEQ JP 92022919 B UPAB: 19930922
Peptides having thymic humoral activity and of formulae (I)-(III) are new.
Leu-Glu-Asp-Gly-Pro-Lys-Phe-Leu (I)
His-Pro-Leu-Pro-Asp-Leu-Tyr (II)
Phe-Val-Leu (III)
These peptides are designated THF gamma 2, THF gamma 4 and THF gamma 5 respectively (THF = thymic **humoral factor**). The peptides may be isolated from natural thymes glands or can be produced synthetically (e.g. using merrifield techniques). The isolation technique involves (i) preparing THF I from frozen calf thymes by the method of US4250084; (ii) subjecting THF I to gel filtration to obtain THF II; (iii) treating THF II by reversed phase HPLC to recover THF IIII; (iv) further subjecting THF III to reversed phase HPLC to give THF 7; (v) treating THF 7 by reversed phase HPLC to provide THF 8; and (vi) sepg. THF 8 into fractions gamma 2; gamma 4 and gamma 5 by reversed phase HPLC.
USE - The peptides may be used to restore immunologic T-cell function in patients suffering from a detective thymic epithelial analage; causing dysmaturity of the T-cell lineage. (J501156997-A)

ABEQ EP 204328 B UPAB: 19941010
A peptide having thymic humoral activity and being selected from the class consisting of peptides having the following amino acid sequences: Leu-Glu-Asp-Gly-Pro-Lys-Phe-Leu; His-Pro-Leu-Pro- Asp-Leu-Tyr; and Phe-Val-Leu.
Dwg.0/0

L18 ANSWER 83 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1985-133189 [22] WPIDS
DOC. NO. NON-CPI: N1985-099964
DOC. NO. CPI: C1985-058273
TITLE: Determn. of thymus **humoral factor** activity unit - involves acting on immuno-competent cells and administrating test preparate in vivo to increase accuracy.
DERWENT CLASS: B04 P31
INVENTOR(S): GRINBERG, S M; SKOBELTSYN, E S; STOLYAROVA, T V
PATENT ASSIGNEE(S): (KHME-R) KHARK MED RADIOLOGY
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
SU 1122299	A	19841107	(198522)*		4

Mitra 09/786,260

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
SU 1122299	A	SU 1982-3471765	19820521

PRIORITY APPLN. INFO: SU 1982-3471765 19820521
AN 1985-133189 [22] WPIDS
AB SU 1122299 A UPAB: 19930925
40-50 hrs. after the in vivo administration of the test preparate, the number of nucleus-containing cells in the thymus is determined. The unit of activity of the ppte. is the amount (measured in mkg) which causes an increase in nucleus-containing cells of 1.8-2 fold, compared to a control test. As previously, the method involves action on the immunocompetent cells.

Typically, the proposed method gave good reproducibility (e.g. in 4 repeated tests the coefft. of variation did not exceed 20%; the allowed level is 33%).

USE/ADVANTAGE - Increased accuracy of determn. of thymus **humoral factor** activity unit, e.g. in pharmacological evaluation of thymosin hormone. Bul.41/7.11.84
0/0

L18 ANSWER 84 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1983-748443 [35] WPIDS
DOC. NO. CPI: C1983-082089
TITLE: Antitumour substance mfr. - by injecting saline into abdomen of lipo polysaccharide-treated animal, then recovering and purifying saline.
DERWENT CLASS: B04
INVENTOR(S): ENOMOT, H; MATSUDA, M; OZAKI, M; WATANABE, H
PATENT ASSIGNEE(S): (NNSH) NIPPON SHINYAKU CO LTD
COUNTRY COUNT: 5
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
EP 86475	A	19830824	(198335)*	EN	14
R: DE FR GB IT					
JP 58141785	A	19830823	(198339)		

PRIORITY APPLN. INFO: JP 1982-23977 19820216
AN 1983-748443 [35] WPIDS
AB EP 86475 A UPAB: 19930925
Mfr. of an antitumour substance comprises intraperitoneally administering an immunity donator to an animal; then administering a lipopolysaccharide (LPS) derived from a Gram-negative bacillus while simultaneously injecting a large amount of physiological saline solution into the abdominal cavity; followed by recovering the physiological saline solution and purifying it.

A **humoral factor** having antitumour activity is recovered in high purity and high yield by the utilisation of animal cells derived from monocytes. The factor exhibits the same action as tumour necrosis factor (TNF). However, unlike the prior art method in which TNF is recovered from the serum of mice which have been intravenously given LPS, the present antitumour substance can be obtd. in large quantities and

containing less impurities. Activity is demonstrated in vivo against Meth-A (fibrosarcoma) and in-vitro against L-929 cancer cells.

L18 ANSWER 85 OF 85 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN
ACCESSION NUMBER: 1981-E5793D [20] WPIDS
TITLE: Artificial-heart automatic control mechanism - has amplifier-limiter, rectifier frequency-voltage converter and two delay circuits.
DERWENT CLASS: P32 S05
INVENTOR(S): KLEIMENOV, V A; LEVOCHKIN, V S; ZHARKOV, L D
PATENT ASSIGNEE(S): (ELEC-R) ELECTROMECH RES INS
COUNTRY COUNT: 1
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
SU 760969	B	19800915	(198120)*		

PRIORITY APPLN. INFO: SU 1978-2646019 19780718
AN 1981-E5793D [20] WPIDS
AB SU 760969 B UPAB: 19930915
The mechanism comprises a transducer (1) for stretching of the biological tissue, connected to an amplifier (2), series-wired position transducer (11), artificial heart membrane, flipflop (12) and executive mechanism (13), and a functional converter.

To enable the control to allow for haemodynamic, nerve and **humoral factors**, it includes, in series with the amplifier, an amplifier-limiter (3), rectifier (4) and freq.-voltage converter (5), connected via two functional converters (8,9) to the controlling inputs of two delay circuits (6,7).

The inputs of the delay circuits are connected to the output of the rectifier. The outputs of these circuits are connected to the inputs of an OR gate, output of which is connected to the inputs of the flipflop and executive mechanism. Bul.33/7.9.80